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# PROMONTORY HALL HVAC UPGRADE

Utah State Fair Park  
155 North 1000 West  
Salt Lake City, Utah

[illegible]

DATE: APRIL 8, 2008

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| DFCM PROJECT NO: | 07211370 |
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| HFSA PROJECT NO: | 0740.01 |
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| CAD DWG FILE NO: |    |
| DRAWN BY:        | EM |

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| CHECKED BY: | BWS |
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| DESIGNED BY: | BWS |
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| DWG TYPE:              | ARCHITECTURAL |
| PROJECT GENERAL PHASE: |               |

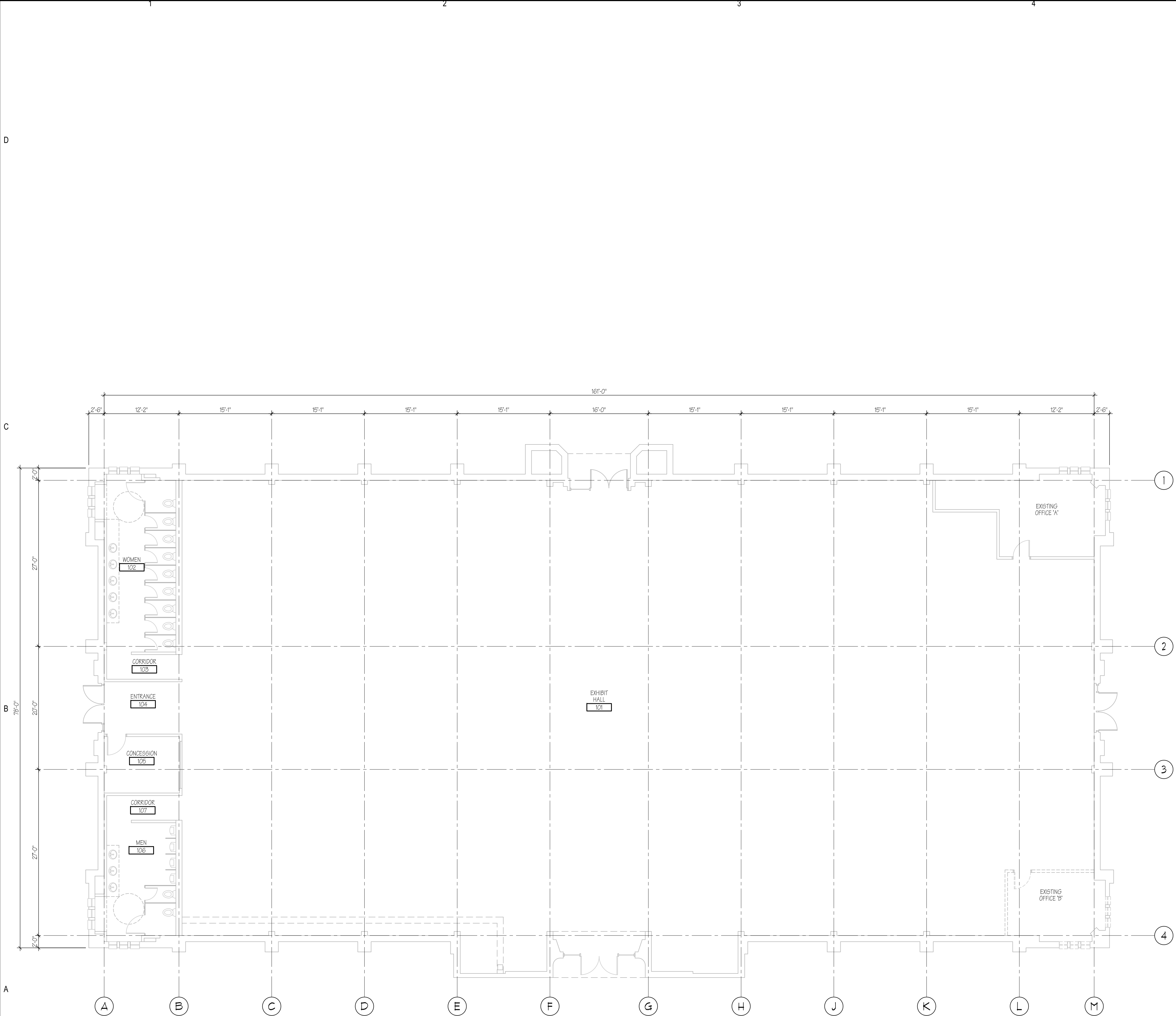
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# SITE PLAN

## G200

SHEET 2 OF 6



**A1** DEMOLITION FLOOR PLAN  
SCALE: 1/8" = 1'-0"

GENERAL DEMOLITION NOTES

A. REMOVE ALL BATHROOM COUNTERTOPS.  
B. SEE PLUMBING AND MECHNAICAL DRAWINGS FOR ADDITIONAL DEMOLITION REQUIREMENTS AND COORDINATE. PATCH AND REPAIR ALL SURFACES TO MATCH EXISTING.

DEMOLITION KEYED NOTES

◊ REMOVE COUNTERTOP.

DEMOLITION LEGEND

◻

 REMOVE BATHROOM COUNTERTOPS COMPLETE.

◻

 REMOVE WALL.

◻

 REMOVE DOOR, DOOR FRAME & HARDWARE.

◻

 REMOVE WINDOWS, WINDOW FRAMES & HARDWARE.



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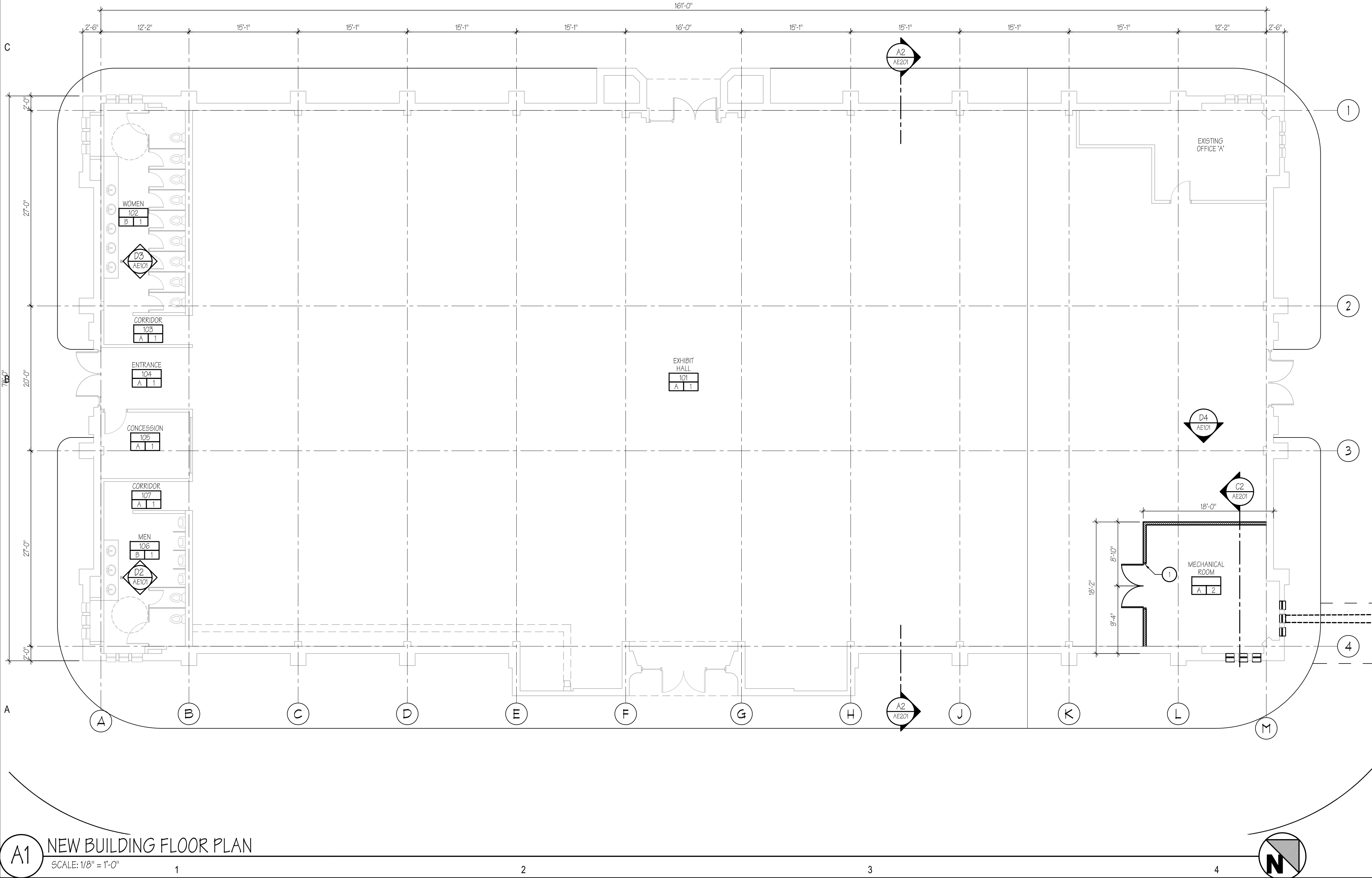
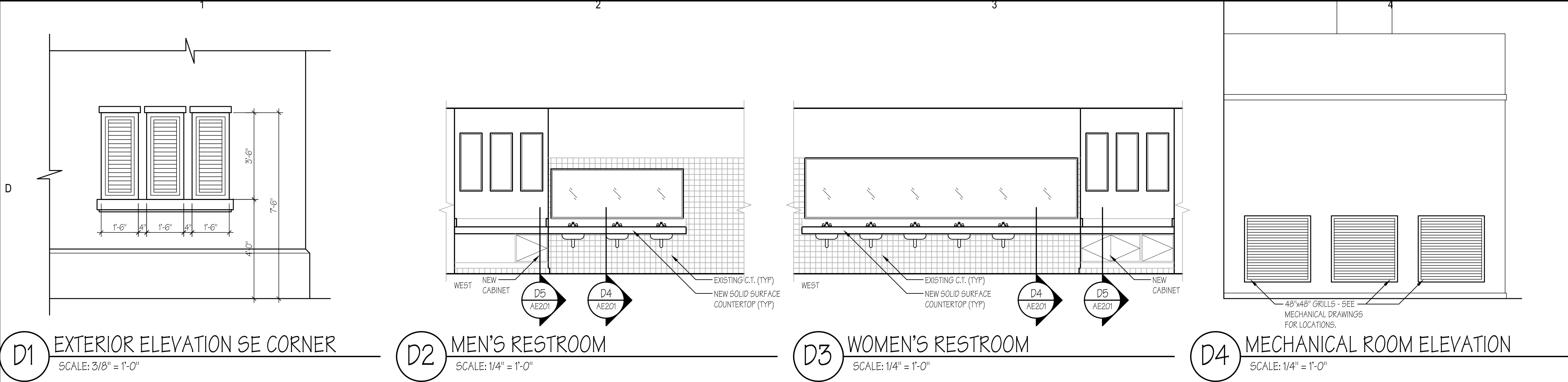
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| CHECKED BY:          | BWS                           |
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| SHEET TITLE          |                               |

**BUILDING DEMO  
FLOOR PLAN**

**AD101**  
SHEET 3 OF 6



**GENERAL NOTES**

A. ALL DIMENSIONS TAKEN FROM FINISHED FACE OF NEW AND EXISTING WALLS.

B. IF A CONFLICT OCCURS BETWEEN DRAWINGS, DRAWINGS AND SPECIFICATIONS, SPECIFICATION SECTIONS AND DIVISIONS OR BETWEEN OTHER PARTS OF THESE CONSTRUCTION DOCUMENTS OR THESE DOCUMENTS AND ANY CODE REQUIREMENT, THE CONTRACTOR MAY REQUEST CLARIFICATION DURING THE BIDDING PERIOD. OTHERWISE THE MOST STRINGENT REQUIREMENTS SHALL APPLY AND BE PART OF THE CONTRACT AT NO ADDITIONAL COST TO THE OWNER.

C. ALL WORK AND MATERIALS SHALL BE IN FULL CONFORMANCE WITH THE LATEST FEDERAL, STATE AND LOCAL CODES LAWS AND ORDINANCES, INCLUDING THEIR MOST RECENT REVISIONS, AMENDMENTS AND INTERPRETATIONS.

D. THE GENERAL CONTRACTOR SHALL BRING TO THE ATTENTION OF THE ARCHITECT, FOR IMMEDIATE RESOLUTION, ANY NON-CONFORMING CONDITIONS WHICH MAY BE FOUND IN EXISTING FIELD CONDITIONS.

E. PATCH AND REPAIR ANY DAMAGE TO ANY SURFACE, EQUIPMENT ETC. NOT IN THIS SCOPE OF WORK.

**KEYED NOTES**

① NEW HOLLOW METAL DOOR FRAME, DOOR AND HARDWARE (GROUP 1). PAINT TO MATCH EXISTING.

**LEGEND**

3-5/8" METAL STUDS @ 16" O.C. W/ 5/8" GYP. BOARD EACH SIDE.

(3) 14"x38" INTAKE LOUVER

**FINISH LEGEND**

| ROOM NAME                           |                                     |
|-------------------------------------|-------------------------------------|
| FLOOR / BASE                        | WALL / WAINSCOT                     |
| A. EXISTING CONDITION. LEAVE AS IS. | 1. EXISTING CONDITION. LEAVE AS IS. |
| B. EPOXY FLOOR.                     | 2. PAINT.                           |

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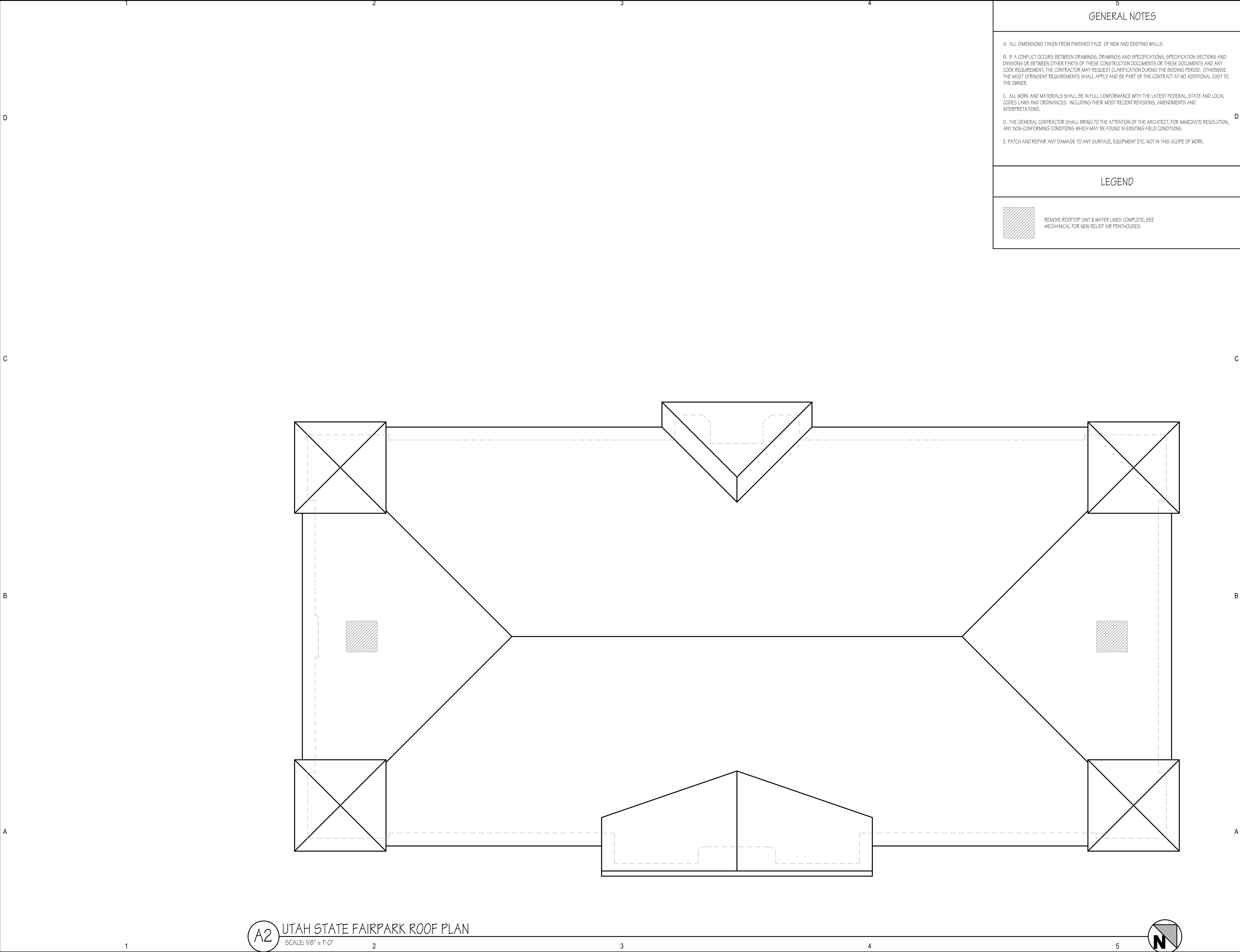
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**NEW BUILDING FLOOR PLAN**

**AE101**

SHEET 4 OF 6



GENERAL NOTES

- A. ALL DIMENSIONS TAKEN FROM FINISHED FACE OF NEW AND EXISTING WALLS.
- B. IF A CONFLICT OCCURS BETWEEN DRAWINGS, DRAWINGS AND SPECIFICATIONS, SPECIFICATION SECTIONS AND DIVISIONS OR BETWEEN OTHER PARTS OF THESE CONSTRUCTION DOCUMENTS OR THESE DOCUMENTS AND ANY CODE REQUIREMENT, THE CONTRACTOR MAY REQUEST CLARIFICATION DURING THE BIDDING PERIOD. OTHERWISE THE MOST STRINGENT REQUIREMENTS SHALL APPLY AND BE PART OF THE CONTRACT AT NO ADDITIONAL COST TO THE OWNER.
- C. ALL WORK AND MATERIALS SHALL BE IN FULL CONFORMANCE WITH THE LATEST FEDERAL, STATE AND LOCAL CODES LAWS AND ORDINANCES, INCLUDING THEIR MOST RECENT REVISIONS, AMENDMENTS AND INTERPRETATIONS.
- D. THE GENERAL CONTRACTOR SHALL BRING TO THE ATTENTION OF THE ARCHITECT, FOR IMMEDIATE RESOLUTION, ANY NON-CONFORMING CONDITIONS WHICH MAY BE FOUND IN EXISTING FIELD CONDITIONS.
- E. PATCH AND REPAIR ANY DAMAGE TO ANY SURFACE, EQUIPMENT ETC. NOT IN THIS SCOPE OF WORK.

LEGEND

-  REMOVE ROOFTOP UNIT & WATER LINES COMPLETE, SEE MECHANICAL FOR NEW RELIEF AIR PENTHOUSES.



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HALL HVAC  
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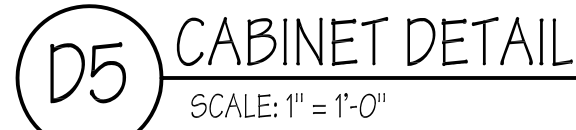
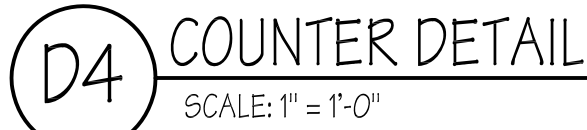
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ROOF  
PLAN

**AE102**

SHEET 5 OF 6



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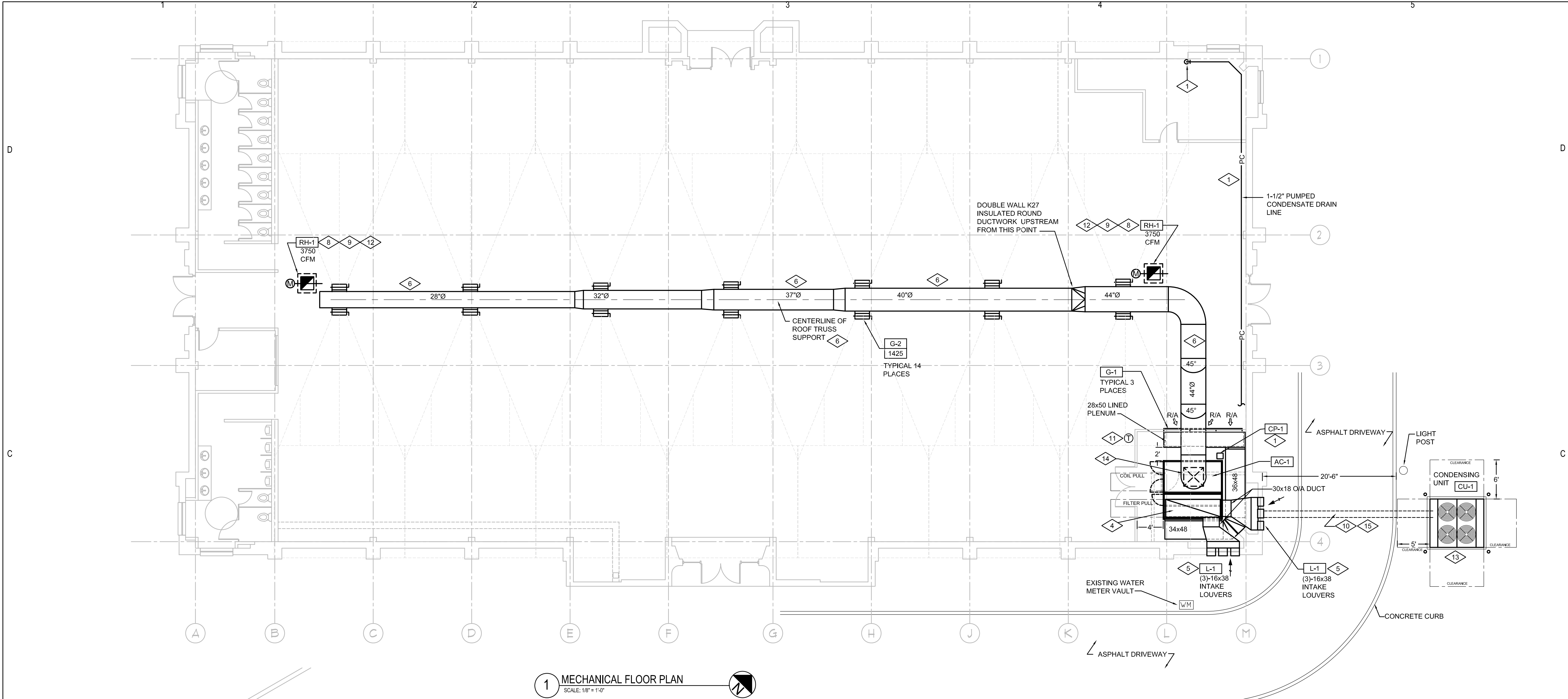
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## BUILDING SECTION

# AE201

SHEET 6 OF 6

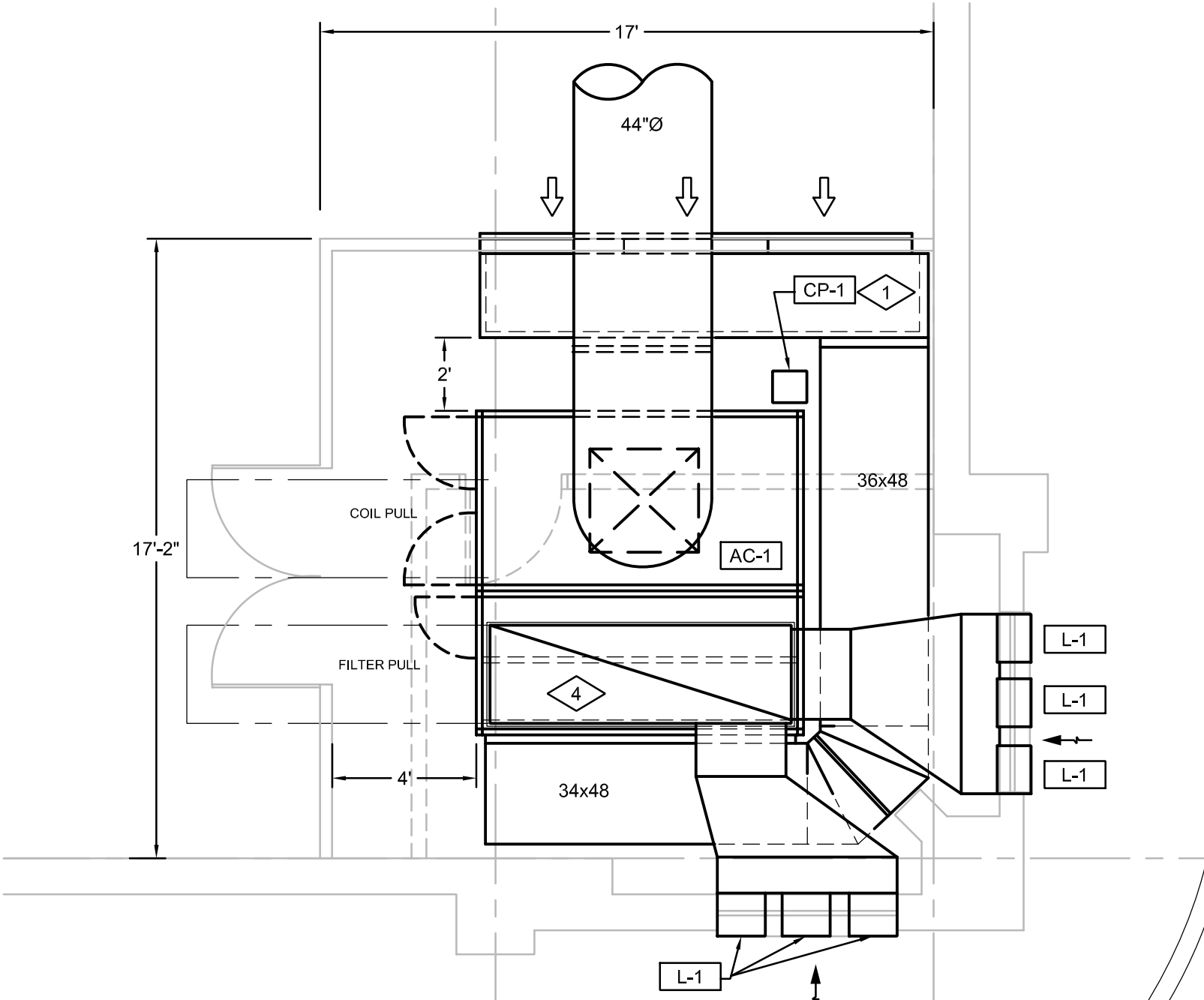


1 MECHANICAL FLOOR PLAN  
SCALE: 1/8" = 1'-0"

GENERAL NOTES:  
CONTRACTOR IS TO FIELD INSPECT ALL EXISTING CONDITIONS PRIOR TO BID.

REFERENCE NOTES

- 1 CONDENSATE PUMP - SEE SCHEDULES. LOCATE PUMP IN ACCESSIBLE AREA. ROUTE PUMPED CONDENSATE LINE UP ABOVE CEILING OF MECHANICAL ROOM, AND HIGH ENOUGH TO ALLOW GRAVITY FLOW AT 1/8" SLOPE PER FOOT. TO EXISTING SINK IN NORTHWEST CORNER ( SINK LOCATION TO BE VERIFIED PRIOR TO BID- INFORMATION BASED ON EXISTING BLUEPRINTS PROVIDED BY ARCHITECT .) COORDINATE DRAIN LINE ROUTING HIGH ABOVE CEILING OF MECHANICAL ROOM. PAINT DRAIN LINE AS DIRECTED BY ARCHITECT. MOUNT WITH INDIVIDUAL MOUNTING BRACKETS AS TO MINIMIZE VISUAL IMPACT. DRAIN LINE = 1-1/2".
- 2 INTENDED ROUTE FOR REFRIGERANT PIPING.
- 3 PROVIDE SUPPORT FOR DUCTWORK. COORDINATE WITH CONCRETE PAD FOR LEVEL SUPPORT WITH UNIT.
- 4 PROVIDE FULL SIZED OUTSIDE AIR PLENUM, TO 20" HEIGHT ABOVE UNIT. COORDINATE SIZE OF PLENUM WITH ACTUAL UNIT DIMENSIONS PRIOR TO COMMENCEMENT OF WORK.
- 5 EXISTING WINDOWS TO REMAIN- NEW INTAKE LOUVERS SIZED AT 16"Wx38"H. FIELD COORDINATE SIZE PRIOR TO ORDERING INTAKE LOUVERS. LOUVERS ARE A CUSTOM SIZE. PROVIDE MINIMUM OF 12" DEEP FULL SIZED PLENUM ON INTERIOR SIDE OF INTAKE LOUVERS.
- 6 MAIN SUPPLY DUCTWORK TO BE ROUTED BELOW EXISTING ROOF TRUSS. LOCATE DUCT CENTERLINE WITH CENTERLINE OF TRUSS SUPPORTS, TOWARDS THE NORTHEAST SIDE. FIELD COORDINATE ENTIRE DUCT RUN PRIOR TO COMMENCEMENT OF WORK. BOTTOM OF DUCTWORK TO BE 12" BELOW BOTTOM OF TRUSS CHORD.
- 7 PROVIDE 6" CONCRETE HOUSEKEEPING PAD.
- 8 REMOVE EXISTING EVAPORATIVE COOLER AND ALL ASSOCIATED DUCTWORK. REMOVE ALL ELECTRICAL WIRING AND/OR CONTROLS.
- 9 FIELD COORDINATE EXISTING EVAPORATIVE COOLER ROOF CURB. FIELD VERIFY SIZE OF CURB OPENING, AND COORDINATE SIZE OF NEW RELIEF HOOD WITH ENGINEER. REPLACE CURB AND REPAIR ROOFING IF EXISTING CURB SHOWS ANY SIGNS OF LEAKING OR ROOF DAMAGE.
- 10 CUT AND PATCH EXISTING ASPHALT DRIVEWAY TO ACCOMMODATE ROUTING OF REFRIGERANT PIPING TO NEW CONDENSING UNIT. COORDINATE WITH ELECTRICAL FOR ROUTING OF REQUIRED ELECTRICAL CONNECTIONS TO NEW CONDENSING UNIT.
- 11 PROGRAMMABLE THERMOSTAT.
- 12 SEE SCHEDULE SHEET FOR RELIEF AIR DAMPER CONTROLS.
- 13 PROVIDE 4" CONCRETE PAD WITH PROTECTIVE BOLLARDS AT EACH CORNER OF CU-1. PROVIDE HAIL GUARDS FOR THE CONDENSING UNIT. MAINTAIN A CLEARANCE BETWEEN THE EDGE OF THE CURB AND THE PROTECTIVE BOLLARDS FOR LANDSCAPING REQUIREMENTS (MOWER WIDTH).
- 14 TRANSITION 44"Ø DUCT DOWN THROUGH CEILING AND TRANSITION TO UNIT CONNECTION. VERIFY CONNECTION SIZE PRIOR TO FABRICATION OF FITTING. SEE SECTION.
- 15 REFRIGERANT PIPING TO BE ROUTED 36" BELOW GRADE, IN A PVC PIPE SIZED LARGE ENOUGH FOR BOTH SETS OF REFRIGERANT LINES. PROVIDE ELBOWS TO ACCOMMODATE REFRIGERANT PIPING. COORDINATE ALL SIZE REQUIREMENTS AND FABRICATE PIPING PRIOR TO BURIAL.



2 ENLARGED MECHANICAL PLAN  
SCALE: 1/4" = 1'-0"

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Utah State Fair Park

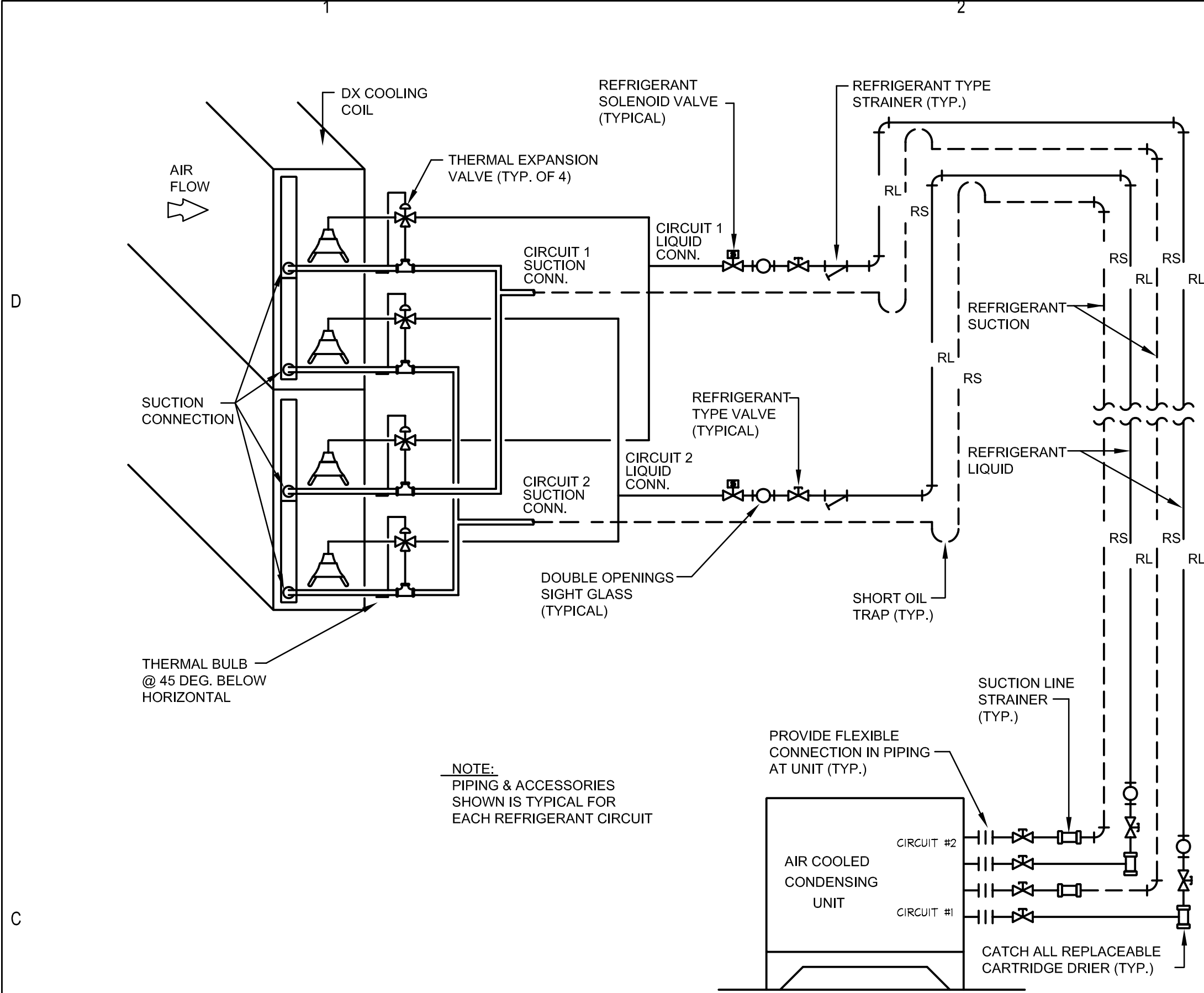
Salt Lake City, Utah

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DATE: APR 08, 2008  
AGENCY PROJECT NO: 07033660  
HFSA PROJECT NO: 0740.01 O&P PROJ. # 07171  
CAD DWG FILE NO:  
DRAWN BY:  
CHECKED BY: JMS  
DESIGNED BY: RFG  
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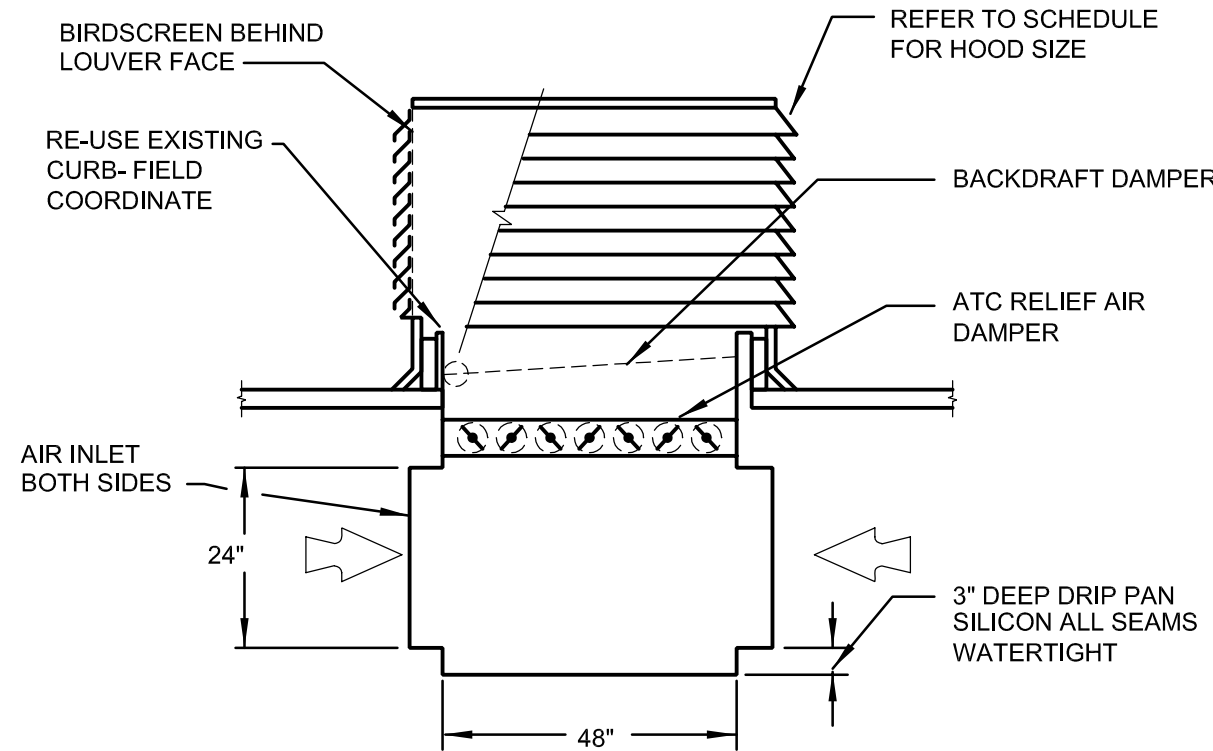
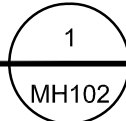
BUILDING  
FLOOR PLAN

MH101



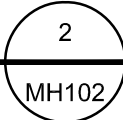
MULTIPLE CIRCUIT REFRIGERANT PIPING DIAGRAM

NOT TO SCALE



PENTHOUSE ROOF HOOD DETAIL

NOT TO SCALE



| GRILLE SCHEDULE |           |         |                    |                     |           |
|-----------------|-----------|---------|--------------------|---------------------|-----------|
| SYMBOL          | NECK SIZE | SERVICE | LOCATION           | MAKE & MODEL        | REMARKS   |
| G-1             | 48x48     | RETURN  | SURFACE/WALL MOUNT | PRICE SERIES 96     | (1)(2)(3) |
| G-2             | 24x18     | SUPPLY  | DUCT MOUNTED       | PRICE SERIES 620DAL | (4)       |

NOTES:

- PROVIDE OPTIONAL FINISH - COORDINATE COLOR WITH ARCHITECT.
- HEAVY DUTY ALUMINUM CONSTRUCTION.
- 3/4" BLADE SPACING WITH 45° DEFLECTION.
- DOUBLE DEFLECTION ALUMINUM GRILLE WITH ALUMINUM DAMPER, 22.5° DEFLECTION.

| ROOF HOOD SCHEDULE |              |        |                      |                       | (1)(2) |
|--------------------|--------------|--------|----------------------|-----------------------|--------|
| SYMBOL             | ROOF OPENING | TYPE   | OVERALL DIMENSIONS   | MAKE & MODEL          |        |
| RH-1               | 48"x48"      | RELIEF | 56.5"x56.5"x15" HIGH | WESTERN VENTS & CURBS |        |

NOTES:

- ROOF HOOD SHALL BE ALUMINUM CONSTRUCTION COMPLETE WITH BACKDRAFT DAMPER, MOTORIZED DAMPER, BIRDSCREEN.
- RE-USE EXISTING ROOF CURB. CONTRACTOR IS TO FIELD VERIFY SIZE OF CURB AND ROUGH OPENING, AND MATCH NEW ROOF CURB TO THE EXISTING CURB DIMENSIONS. CONTACT ENGINEER IF SIZE IS DIFFERENT THAN SCHEDULED, AND COORDINATE SELECTION OF ROOF HOOD.
- PROVIDE MOTOR OPERATED DAMPER AND PRESSURE CONTROLS PACKAGE.

| LOUVER SCHEDULE |         |                 |        |                 | (1)(2)(3) |
|-----------------|---------|-----------------|--------|-----------------|-----------|
| SYMBOL          | SIZE    | LOCATION        | TYPE   | MAKE & MODEL    |           |
| L-1             | 16"x38" | MECHANICAL ROOM | INTAKE | RUSKIN ELF 375D | (4)       |

NOTES:

- LOUVER SHALL HAVE 4" DEEP BLADES.
- PROVIDE BIRDSCREEN.
- PROVIDE BACKDRAFT DAMPER
- CONTRACTOR TO FIELD VERIFY ACTUAL ROUGH OPENING AT JOB SITE PRIOR TO ORDERING/BIDDING.

GENERAL NOTES - MECHANICAL

- THE WORK SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL AND STATE CODES.
- THIS CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND PAY ALL FEES REQUIRED IN CONNECTION WITH THE WORK.
- UNLESS OTHERWISE SPECIFIED, ALL EQUIPMENT, ACCESSORIES, AND MATERIALS SHALL BE NEW AND UNDAMAGED.
- UPON COMPLETION OF WORK, REMOVE ALL SURPLUS MATERIALS AND RUBBISH.
- ANY CUTTING, PATCHING, OR FILLING NECESSARY FOR THE PROPER EXECUTION OF THIS WORK SHALL BE DONE BY THIS CONTRACTOR. NO ROUGH OR UNSIGHTLY WORK WILL BE ALLOWED, AND CUTTING OF STRUCTURAL MEMBERS SHALL BE DONE ONLY ON APPROVAL OF THE ARCHITECT.
- THE CONTRACTOR SHALL COORDINATE ALL ROOFTOP EQUIPMENT POWER REQUIREMENTS, WEIGHTS AND DIMENSIONS WITH THE ELECTRICAL AND STRUCTURAL ENGINEERS PRIOR TO COMMENCEMENT OF WORK.
- BEFORE PROCEEDING WITH ANY WORK, THE CONTRACTOR SHALL CAREFULLY CHECK AND VERIFY ALL DIMENSIONS AND SHALL ASSUME FULL RESPONSIBILITY FOR THE FITTING-IN OF HIS DUCTS, PIPES, AND EQUIPMENT.
- ALL SYSTEMS SHALL BE ADJUSTED TO WITHIN 5% OF THE DESIGN DOCUMENTS REQUIREMENTS.
- GENERAL: ALL NECESSARY ALLOWANCE AND PROVISIONS SHALL BE MADE IN THE INSTALLATION OF SHEET METAL DUCTS FOR THE STRUCTURAL CONDITIONS OF THE BUILDING, AND DUCTS SHALL BE TRANSFORMED OR DIVIDED, AS MAY BE REQUIRED.
- LOW PRESSURE RECTANGULAR DUCTS: THE INTERIOR SURFACE OF ALL LOW PRESSURE SUPPLY AND RETURN AIR DUCTS SHALL BE LINED WITH 1" THICK FIBERGLASS DUAL DENSITY DUCT LINER, UNLESS OTHERWISE NOTED.
- LOW PRESSURE ROUND DUCTS: ALL ROUND METAL DUCTS SHALL BE WRAPPED WITH 1" THICK FIBERGLASS DUCT WRAP WITH FACTORY-APPLIED VAPOR BARRIER.
- ALL DUCTWORK DIMENSIONS SHOWN ARE CLEAR INSIDE DIMENSIONS.
- ALL SHEET METAL WORK SHALL BE FABRICATED AND INSTALLED PER SMACNA STANDARDS.

MECHANICAL EQUIPMENT SCHEDULES

AC-1

SPLIT SYSTEM AIR HANDLER - CARRIER MODEL 39MN SIZE 40. 20,000 CFM AT 1.55" E.S.P., 4200' ALTITUDE, 20 HP HIGH EFFICIENCY MOTOR WITH VARIABLE FREQUENCY DRIVE. FORWARD CURVED FAN WITH DRAW THRU VERTICAL ORIENTATION. FAN BHP @ 13.2, R-13 DOUBLE WALL SEALED PANELS, STAINLESS STEEL DRAIN PAN, 40.0 SQ FT 6 ROW 8 FPI INTERTWINED FULL DUAL CIRCUIT COILS, 642 MBH TOTAL COOLING CAPACITY, 547 MBH SENSIBLE COOLING CAPACITY, 42°F SAT. SUCTION TEMP, 124.8 °F SAT. COND. TEMP., 83.25 °F DB/63.94 °F WB, 97 °F AMBIENT AIR TEMP, (2) TXV'S, BOTTOM INLET, WITH FILTER MIXING BOX, REAR RETURN AND TOP FRESH AIR INTAKE DAMPERS, 2" ANGLE FILTER WITH 2" FMB PLEATED 25-30% FILTERS. PROVIDE PROGRAMMABLE THERMOSTAT. PROVIDE SMOKE DETECTOR IN UNIT.

DIMENSIONS: 9'-0"Lx10'-2"Wx13'-2"H  
WEIGHT: 5880 LBS.  
ELECTRICAL: 20 HP MOTOR, 230V/3/60HZ @ 1800 RPM.

CU-1

SPLIT SYSTEM CONDENSING UNIT - CARRIER WEATHERMASTER SERIES 38AH064, OUTDOOR MOUNTED AIR COOLED CONDENSING UNIT, 42°F SAT. SUCTION TEMP, 124.8 °F SAT. COND. TEMP., 2 SEMI-HERMETIC COMPRESSORS, 2 INDEPENDENT REFRIGERANT CIRCUITS, R-22 REFRIGERANT, WEATHERIZED STEEL CABINET, CRANKCASE HEATERS, PROPELLER-TYPE CONDENSER FANS, AUTOMATIC RESET, LOW SUCTION PRESSURE CUTOFF, LOW OIL PRESSURE CUTOFF, INTERNAL OVERLOAD PROTECTION.

DIMENSIONS: 8'-3"Lx7'-5"Wx6'-7"H  
WEIGHT: 3565 LBS.  
ELECTRICAL: 230V/3/60HZ, 246.4 MCA, 350 MOCP.

CP-1

CONDENSATE PUMP: 110 GPH AT 20 FT. HEAD, PERMANENTLY LUBRICATED, EPOXY COATED CAST ALUMINUM HOUSING, 1 GALLON ABS TANK, 1/2" DISCHARGE, 1/12 H.P., 120/1/60, AUTOMATIC ON/OFF DESIGN. MANUFACTURER: LITTLE GIANT  
MODEL: 34C-ST

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HORTICULTURE  
REMODEL

Utah State Fair Park

Salt Lake City, Utah

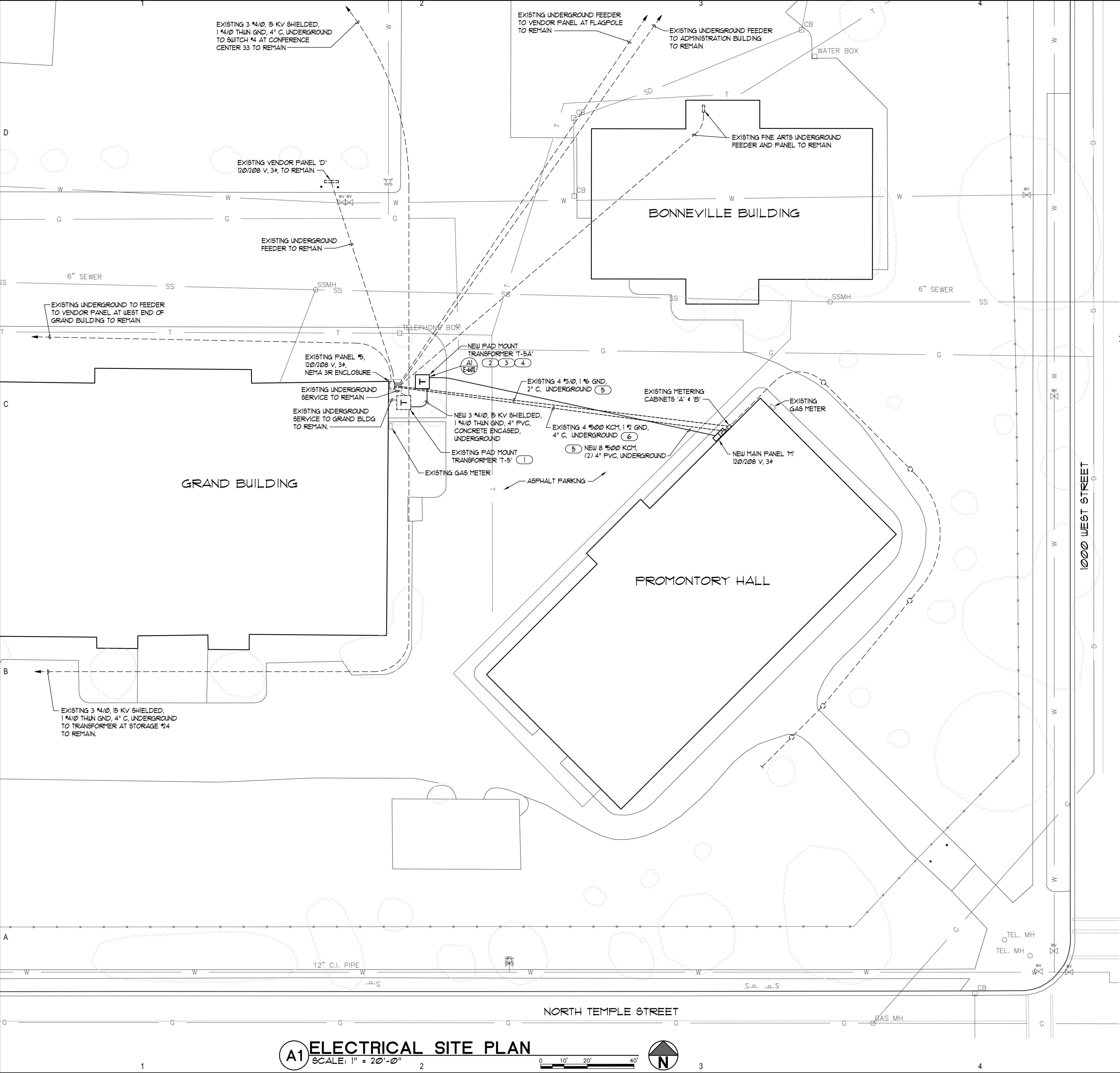
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| DESIGNED BY:         | RFG                           |
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MECHANICAL  
SCHEDULES  
AND DETAILS

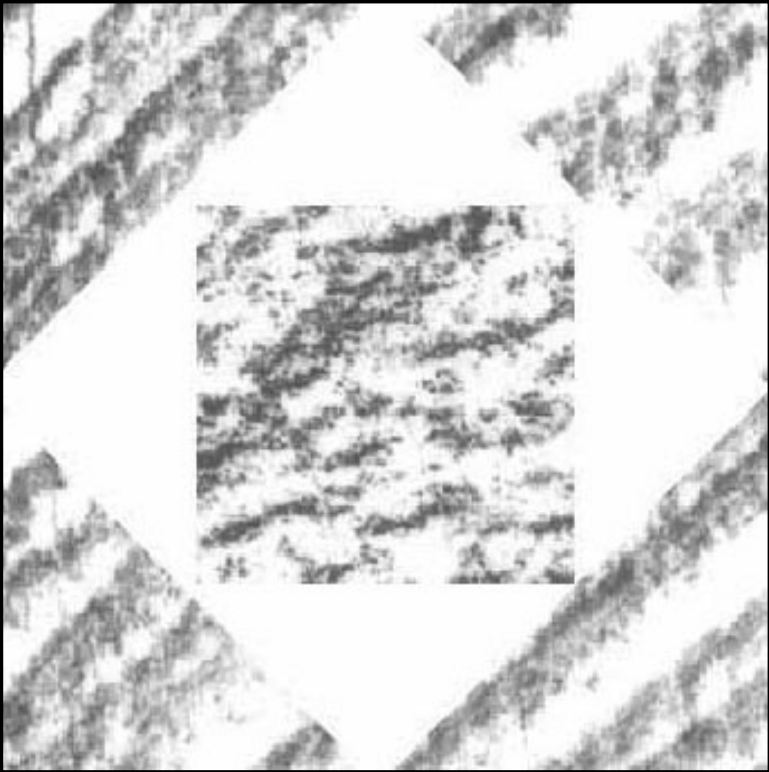
MH102

SHEET 2 OF 2



- GENERAL ELECTRICAL NOTES:**
1. BURY ALL UNDERGROUND CONDUITS MINIMUM 24" BELOW FINISH GRADE WITH RED MAGNETIC WARNING TAPE STATING "CAUTION - BURIED ELECTRICAL" 12 INCHES ABOVE THE CONDUIT.
  2. USE GALVANIZED RIGID STEEL CONDUIT (GRC) FOR ALL CONDUIT THROUGH GRADE AND ELBOWS IN PVC CONDUIT RUNS. CORROSION PROTECT GRC CONDUIT IN ACCORDANCE WITH SPECIFICATION SECTION 16100.
  3. COORDINATE ELECTRICAL SITE WORK WITH GENERAL CONTRACTOR, MECHANICAL CONTRACTOR AND LANDSCAPING CONTRACTOR. INSTALL UNDERGROUND CONDUITS SUCH THAT CONDUITS WILL NOT BE DAMAGED BY SUBSEQUENT INSTALLATION OF TREES AND SHRUBBERY, OR OTHER UNDERGROUND UTILITIES.
  4. COORDINATE INSTALLATION OF NEW ELECTRICAL SERVICE AND METERING WITH OWNER PRIOR TO BEGINNING WORK.
  5. POWER OUTAGES TO THE EXISTING BUILDINGS WILL NOT BE ALLOWED EXCEPT AS DIRECTED BY OWNER. SUBMIT REQUESTS FOR POWER OUTAGES TO THE OWNER MINIMUM SEVEN (7) DAYS PRIOR TO ANY PROPOSED POWER OUTAGES. DO NOT TAKE ANY POWER OUTAGES WITHOUT OWNER'S PERMISSION.
  6. FIELD VERIFY LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO BEGINNING EXCAVATION. COORDINATE REQUIREMENTS WITH OWNER AND/OR BLUE STAKES.

- KEYED NOTES:**
1. SEE NEW SINGLE LINE DIAGRAM, SHEET E-601, FOR PRIMARY CONNECTION TO EXISTING TRANSFORMER.
  2. FIELD COORDINATE EXACT LOCATION OF NEW TRANSFORMER 'T-5A' WITH ARCHITECT PRIOR TO BEGINNING EXCAVATION FOR NEW TRANSFORMER PAD.
  3. RELOCATE AND RECONNECT EXISTING IRRIGATION SPRINKLER HEADS IN AREA OF NEW TRANSFORMER AS REQUIRED TO PROVIDE SPRINKLER COVERAGE ACCEPTABLE TO ARCHITECT AND OWNER.
  4. REPLACE EXISTING GRASS SOD WITH NEW SOD IN AREA OF NEW TRANSFORMER AS REQUIRED TO RESTORE ORIGINAL CONDITION. DO NOT USE EXISTING SOD.
  5. SAUCUT AND REMOVE EXISTING ASPHALT PAVING TO INSTALL NEW UNDERGROUND CONDUIT. PROVIDE NEW ASPHALT PAVING AS REQUIRED TO RESTORE ORIGINAL CONDITION.
  6. REMOVE EXISTING UNDERGROUND FEEDER CONDUCTORS AND ACCESSIBLE CONDUIT ABOVE GROUND. CAP CONDUIT BELOW GRADE.



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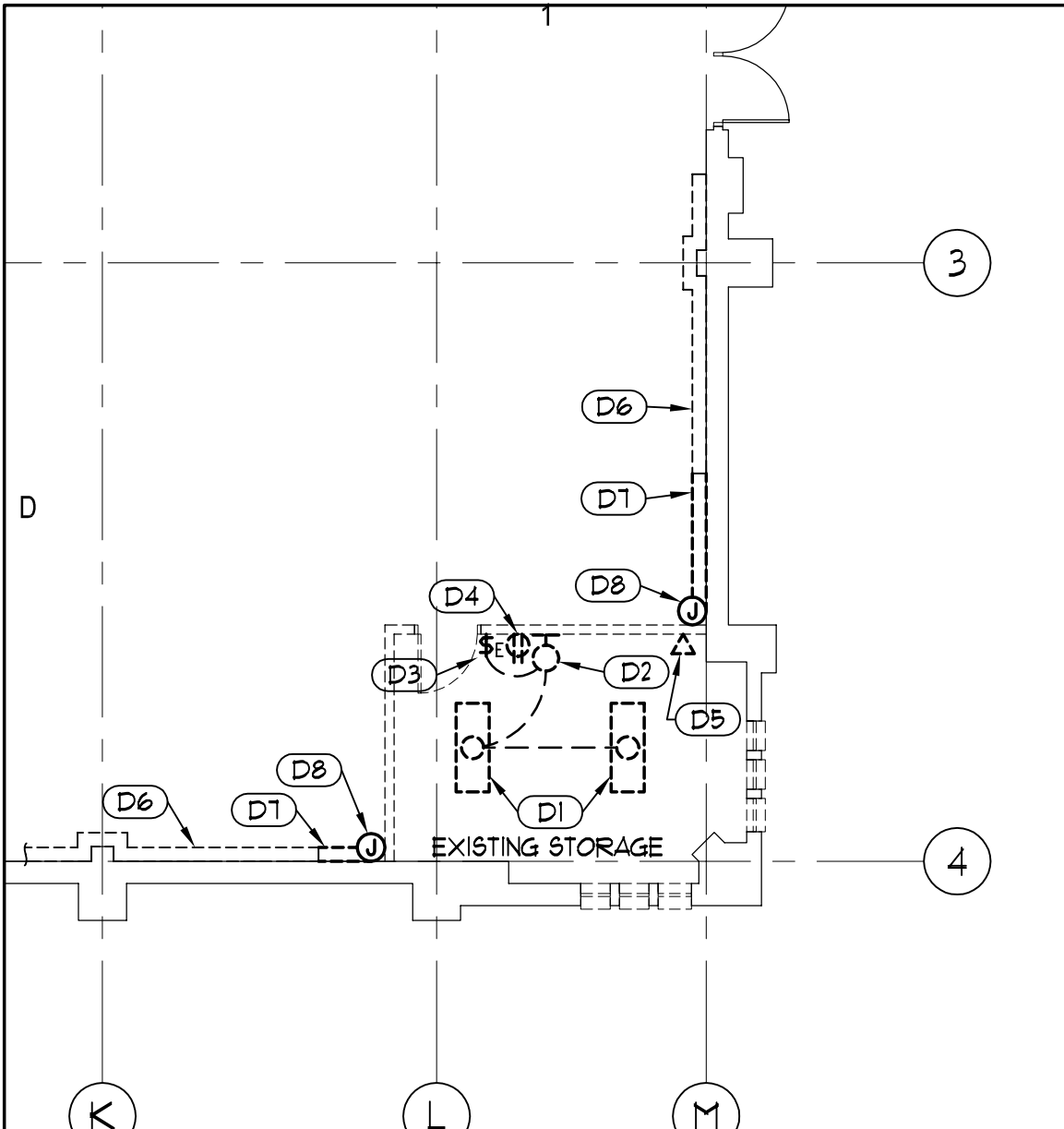
**PROMONTORY  
HALL HVAC  
UPGRADE**  
Utah State Fairpark  
155 North 1000 West  
Salt Lake City, Utah

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| DATE:                | 20 March, 2008                |
| AGENCY PROJECT NO:   | 07211370                      |
| HFSA PROJECT NO:     | 0740.01                       |
| CAD DWG FILE NO:     | 0740 ES101.dwg                |
| DRAWN BY:            | W.B.G.                        |
| CHECKED BY:          | R.G.K.                        |
| DESIGNED BY:         | W.B.G.                        |
| DWG TYPE:            | ELECTRICAL                    |
| ARCHITECTURAL PHASE: | CONSTRUCTION DOCUMENT BID SET |
| SHEET TITLE          |                               |

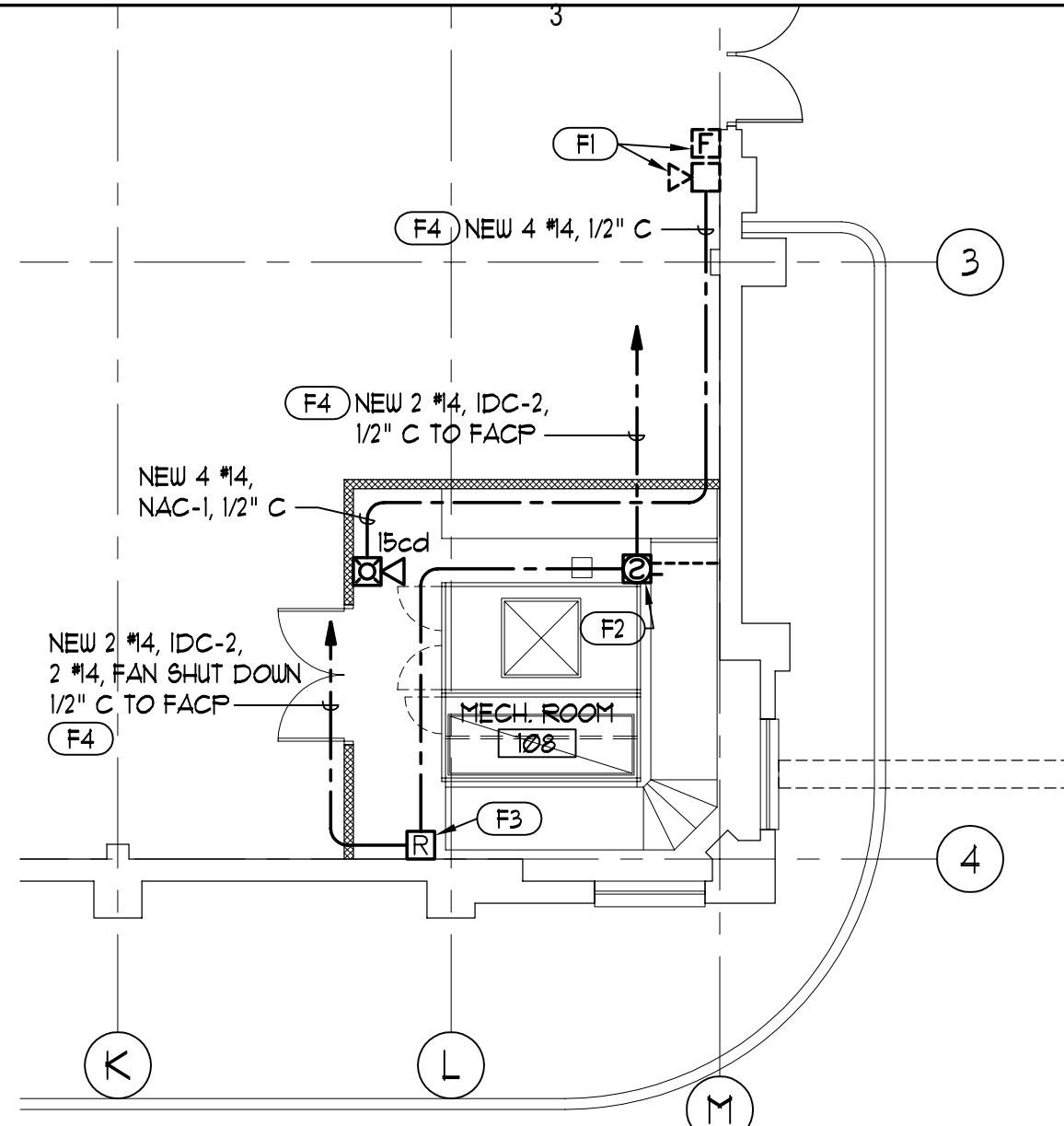
**ELECTRICAL  
SITE PLAN**

**ES101**  
SHEET 1 OF 4 (ELECT)



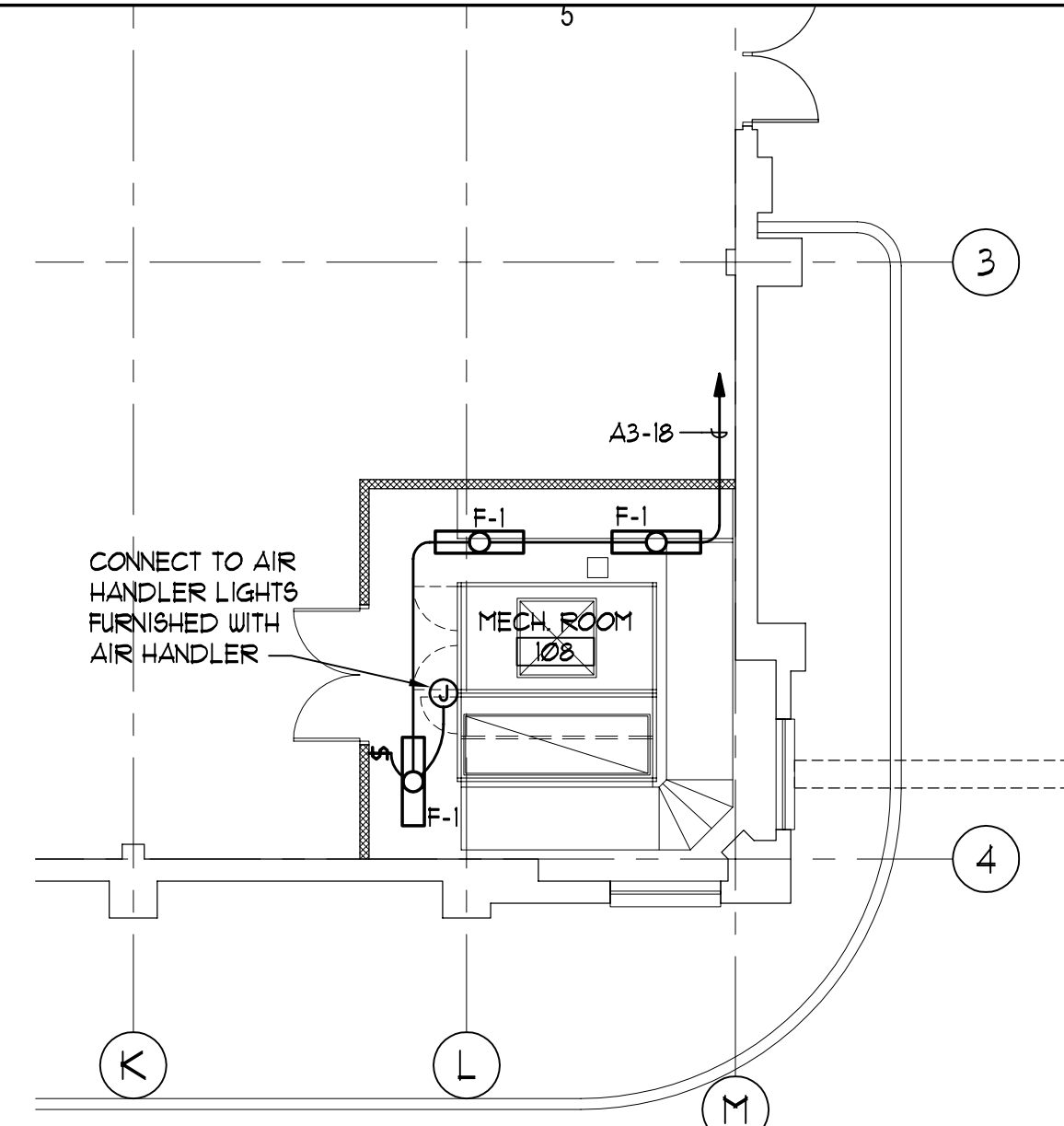
**D1 DEMOLITION PLAN**  
SCALE: 1/8" = 1'-0" 0 4' 8' 16'

- DEMOLITION KEYED NOTES:**
- (D1) REMOVE EXISTING SURFACE MOUNTED 4 FT, 4 LAMP FLUORESCENT FIXTURE INCLUDING ALL ABANDONED WIRE, CONDUIT, BOXES, ETC. FIELD VERIFY EXISTING CIRCUIT.
  - (D2) REMOVE EXISTING WALL, MOUNTED FIXTURE INCLUDING ALL ABANDONED WIRE, CONDUIT, BOXES, ETC.
  - (D3) REMOVE EXISTING SINGLE POLE SWITCH INCLUDING ALL ABANDONED WIRE, CONDUIT, BOXES, ETC.
  - (D4) REMOVE EXISTING DUPLEX RECEPTACLE INCLUDING ALL ABANDONED WIRE, CONDUIT, BOXES, ETC. FIELD VERIFY EXISTING CIRCUIT.
  - (D5) REMOVE EXISTING TELEPHONE OUTLET INCLUDING ABANDONED TELEPHONE CABLE TO POINT OF ORIGIN.
  - (D6) EXISTING SURFACE MOUNTED MULTI-OUTLET ASSEMBLY OUTSIDE OF NEW MECHANICAL ROOM TO REMAIN.
  - (D7) REMOVE EXISTING SURFACE MOUNTED MULTI-OUTLET ASSEMBLY IN AREA OF NEW MECHANICAL ROOM WALL.
  - (D8) INSTALL NEW JUNCTION BOX AT EXISTING CONDUIT FROM FLOOR SERVING EXISTING MULTI-OUTLET ASSEMBLY TO INTERCEPT EXISTING BRANCH CIRCUITS. RECONNECT EXISTING MULTI-OUTLET ASSEMBLY WITH NEW WIRING IN 3/4" CONDUIT.



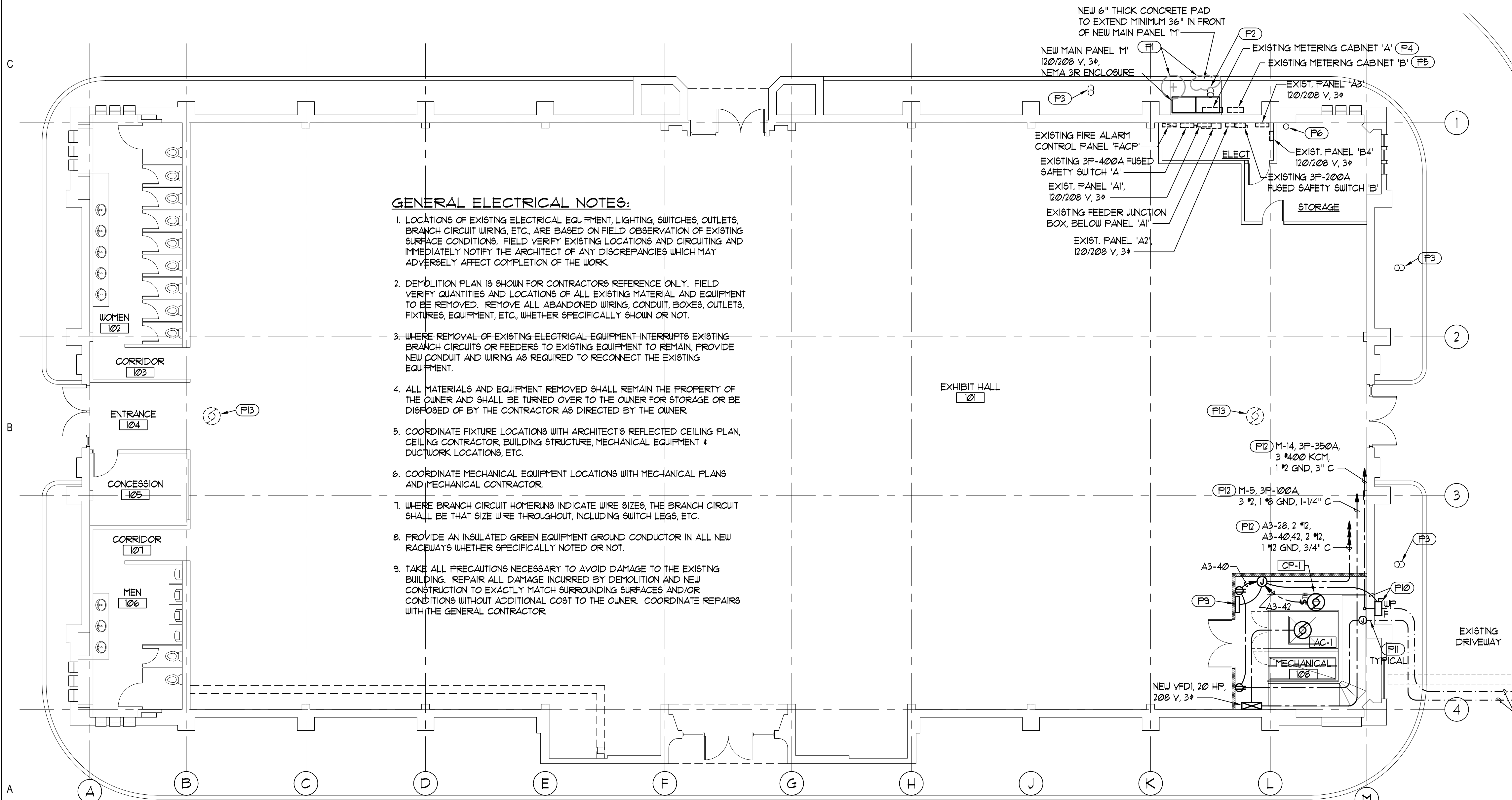
**D3 FIRE ALARM PLAN**  
SCALE: 1/8" = 1'-0" 0 4' 8' 16'

- FIRE ALARM KEYED NOTES:**
- (F1) EXISTING FIRE ALARM PULL STATION AND HORN TO REMAIN. EXTEND EXISTING NOTIFICATION APPLIANCE CIRCUIT TO NEW HORN/STROBE IN NEW MECHANICAL ROOM.
  - (F2) PROVIDE NEW DUCT MOUNTED SMOKE DETECTOR ON NEW RETURN AIR DUCT. PROVIDE SAMPLING TUBES TO EXTEND FULL WIDTH OF THE DUCT.
  - (F3) PROVIDE NEW FIRE SAFETY FUNCTION RELAY FOR FAN SHUT OF NEW AIR HANDLER AC-1. CONNECT TO VFD CONTROL CIRCUIT TO SHUT DOWN FAN UPON GENERAL FIRE ALARM.
  - (F4) INSTALL CONDUIT EXPOSED ON WALL NEAR BOTTOM OF ROOF STRUCTURE, APPROXIMATELY 26 FT ABOVE FLOOR. PAINT TO MATCH WALL.
- FIRE ALARM NOTES:**
- THE EXISTING BUILDING IS PROTECTED THROUGHOUT BY AN MANUAL FIRE ALARM SYSTEM WHICH IS TO REMAIN OPERATIONAL THROUGHOUT THE CONSTRUCTION PERIOD.
  - SUBMIT REQUESTS FOR FIRE ALARM SYSTEM OUTAGES TO THE OWNER'S PROJECT MANAGER NOT LESS THAN 1 DAY'S PRIOR TO ANY PROPOSED FIRE ALARM OUTAGES. IMMEDIATELY NOTIFY THE OWNER'S PROJECT MANAGER IF THE FIRE ALARM IS UNINTENTIONALLY DISABLED AND IMMEDIATELY MAKE REPAIRS TO RESTORE THE SYSTEM TO AN OPERATIONAL CONDITION.
  - THE CONTRACTOR SHALL MAINTAIN A FIRE WATCH DURING ALL FIRE ALARM SYSTEM OUTAGES IN ACCORDANCE WITH IFC SECTION 901.1.
  - ANY WORK PERFORMED ON THE FIRE ALARM SYSTEM SHALL BE APPROVED IN ADVANCE BY THE FIRE ALARM SYSTEM FACTORY REPRESENTATIVE. CONTACT ADT SECURITY SYSTEMS AT (801) 799-5625.



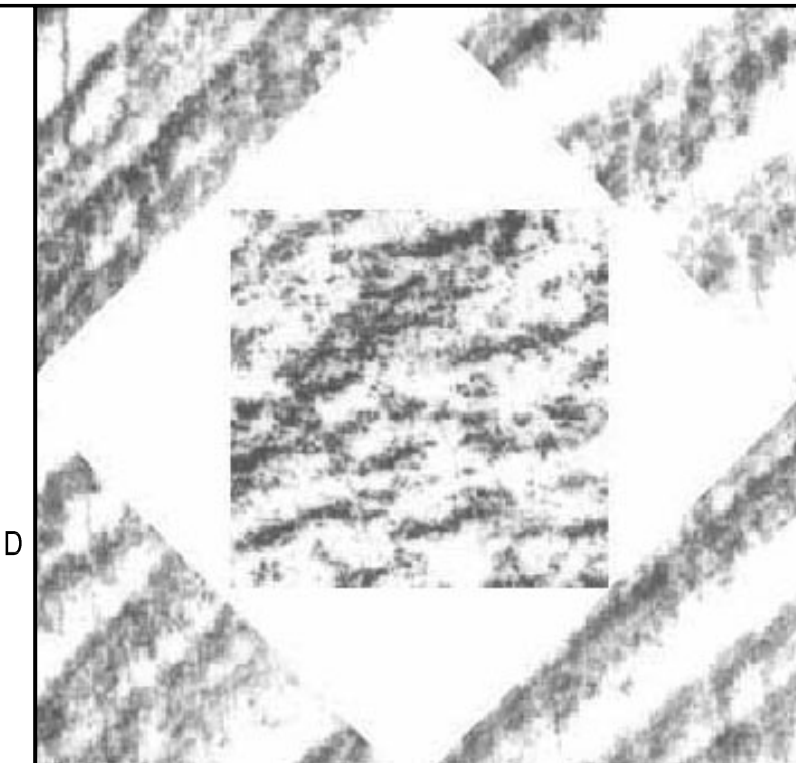
**D5 LIGHTING PLAN**  
SCALE: 1/8" = 1'-0" 0 4' 8' 16'

- POWER KEYED NOTES:**
- (P1) REMOVE EXISTING BUSH AND SHRUB AS REQUIRED TO ALLOW INSTALLATION OF NEW MAIN PANEL 'M' AND NEW CONCRETE PAD.
  - (P2) REMOVE EXISTING IN-GROUND FLOODLIGHT. PROVIDE NEW CAST IRON JUNCTION SIDEWALK BOX EQUAL TO OZ. GEDNEY #TT-080806, MOUNTED FLUSH IN NEW CONCRETE PAD. EXTEND EXISTING UNDERGROUND CONDUIT TO NEW JUNCTION BOX AND REPLACE EXISTING WIRING TO ADJACENT FLOODLIGHTS AS REQUIRED. PROVIDE JUNCTION BOX WITH CONDUIT HUBS AS REQUIRED FOR CONNECTION OF EXISTING CONDUITS.
  - (P3) EXISTING IN-GROUND FLOODLIGHT TO REMAIN.
  - (P4) REMOVE EXISTING METERING CABINET 'A' INCLUDING FEEDERS, SEE EXISTING SINGLE LINE DIAGRAM, SHEET E-601.
  - (P5) EXISTING METERING CABINET 'B' TO REMAIN. REMOVE EXISTING LINE SIDE FEEDER AND RECONNECT TO NEW PANEL 'M'. SEE SINGLE LINE DIAGRAMS, SHEET E-601.
  - (P6) EXISTING MAIN WATER SERVICE PIPE TO REMAIN. PROVIDE NEW GROUNDING ELECTRODE CONDUCTOR CONNECTION TO NEW MAIN PANEL 'M' AND EXTEND TO STEEL BUILDING STRUCTURE AT TOP OF ADJACENT BUILDING COLUMN. SEE NEW SINGLE LINE DIAGRAM, SHEET E-601.
  - (P7) STARTER/CONTROL PANEL FURNISHED WITH CONDENSING UNIT CU-1.
  - (P8) INSTALL CONDUIT UNDERGROUND FROM SAFETY SWITCH TO CU-1. SAWCUT, REMOVE, AND REPAIR EXISTING ASPHALT PAVING AS REQUIRED.
  - (P9) PROVIDE 120 VOLT CIRCUIT A3-28 TO NEW TEMPERATURE CONTROL PANEL FURNISHED BY MECHANICAL CONTROL. FIELD VERIFY LOCATION WITH MECHANICAL CONTRACTOR.
  - (P10) EXTEND 120 VOLT CIRCUIT A3-28 TO NEW CONDENSING UNIT CONTROL PANEL. PROVIDE SAFETY SWITCH WITH 120 VOLT ELECTRICAL INTERLOCK TO DISCONNECT CONTROL CIRCUIT WITH POWER CONDUCTORS.
  - (P11) INSTALL CONDUIT THROUGH EXTERIOR WALL INTO BACK OF ENCLOSURE TO MINIMIZE AMOUNT OF EXPOSED CONDUIT. SEAL CONDUIT PENETRATIONS WITH NON-SHRINK EPOXY GROUT COLORED TO MATCH EXTERIOR WALL.
  - (P12) INSTALL CONDUIT EXPOSED ON WALL NEAR BOTTOM OF ROOF STRUCTURE, APPROXIMATELY 26 FT ABOVE FLOOR. PAINT TO MATCH WALL.
  - (P13) REMOVE ELECTRICAL SERVICE TO EXISTING EVAPORATIVE COOLER INCLUDING ALL ABANDONED WIRING, CONDUIT, BOXES, CONTROLS, ETC. FIELD VERIFY EXISTING CIRCUIT.



- GENERAL ELECTRICAL NOTES:**
- LOCATIONS OF EXISTING ELECTRICAL EQUIPMENT, LIGHTING, SWITCHES, OUTLETS, BRANCH CIRCUIT WIRING, ETC., ARE BASED ON FIELD OBSERVATION OF EXISTING SURFACE CONDITIONS. FIELD VERIFY EXISTING LOCATIONS AND CIRCUITING AND IMMEDIATELY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES WHICH MAY ADVERSELY AFFECT COMPLETION OF THE WORK.
  - DEMOLITION PLAN IS SHOWN FOR CONTRACTORS REFERENCE ONLY. FIELD VERIFY QUANTITIES AND LOCATIONS OF ALL EXISTING MATERIAL AND EQUIPMENT TO BE REMOVED. REMOVE ALL ABANDONED WIRING, CONDUIT, BOXES, OUTLETS, FIXTURES, EQUIPMENT, ETC., WHETHER SPECIFICALLY SHOWN OR NOT.
  - WHERE REMOVAL OF EXISTING ELECTRICAL EQUIPMENT INTERRUPTS EXISTING BRANCH CIRCUITS OR FEEDERS TO EXISTING EQUIPMENT TO REMAIN, PROVIDE NEW CONDUIT AND WIRING AS REQUIRED TO RECONNECT THE EXISTING EQUIPMENT.
  - ALL MATERIALS AND EQUIPMENT REMOVED SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL BE TURNED OVER TO THE OWNER FOR STORAGE OR BE DISPOSED OF BY THE CONTRACTOR AS DIRECTED BY THE OWNER.
  - COORDINATE FIXTURE LOCATIONS WITH ARCHITECT'S REFLECTED CEILING PLAN, CEILING CONTRACTOR, BUILDING STRUCTURE, MECHANICAL EQUIPMENT & DUCTWORK LOCATIONS, ETC.
  - COORDINATE MECHANICAL EQUIPMENT LOCATIONS WITH MECHANICAL PLANS AND MECHANICAL CONTRACTOR.
  - WHERE BRANCH CIRCUIT HOMERUNS INDICATE WIRE SIZES, THE BRANCH CIRCUIT SHALL BE THAT SIZE WIRE THROUGHOUT, INCLUDING SWITCH LEGS, ETC.
  - PROVIDE AN INSULATED GREEN EQUIPMENT GROUND CONDUCTOR IN ALL NEW RACEWAYS WHETHER SPECIFICALLY NOTED OR NOT.
  - TAKE ALL PRECAUTIONS NECESSARY TO AVOID DAMAGE TO THE EXISTING BUILDING. REPAIR ALL DAMAGE INCURRED BY DEMOLITION AND NEW CONSTRUCTION TO EXACTLY MATCH SURROUNDING SURFACES AND/OR CONDITIONS WITHOUT ADDITIONAL COST TO THE OWNER. COORDINATE REPAIRS WITH THE GENERAL CONTRACTOR.

**A1 POWER PLAN**  
SCALE: 1/8" = 1'-0" 0 4' 8' 16'



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**PROMONTORY  
HALL HVAC  
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| DATE:                | 20 March, 2008                |
| AGENCY PROJECT NO:   | 07211370                      |
| HFS PROJECT NO:      | 0740.01                       |
| CAD DWG FILE NO:     | 0740 E-101.dwg                |
| DRAWN BY:            | W.B.G.                        |
| CHECKED BY:          | R.G.K.                        |
| DESIGNED BY:         | W.B.G.                        |
| DWG TYPE:            | ELECTRICAL                    |
| ARCHITECTURAL PHASE: | CONSTRUCTION DOCUMENT BID SET |
| SHEET TITLE          |                               |

**ELECTRICAL PLANS**  
**E-101**  
SHEET 2 OF 4 (ELECT)

D

C

B

A

| FIXTURE SCHEDULE |   |   |   |              |
|------------------|---|---|---|--------------|
| SYMBOL           | MANUFACTURER  | CATALOG NO.   | DESCRIPTION   | LAMP         |
| F-1              | COLUMBIA<br>DAY-BRITE<br>LIGHTOLIER<br>LITHONIA<br>LSI<br>METALUX | CSR4-232-5X-EU<br>LA232-UNV-1/2-EB101<br>K4A232-UNV-HI<br>LA232-MVOLT-GE-B101S<br>F20-232-SSD10-U-UE<br>1A-232-UNV-EBB1 | 8 FT. 2 LAMP ROW, TANDEM, SURFACE MOUNTED INDUSTRIAL<br>FLUORESCENT STRIPLIGHT WITH OPEN REFLECTOR AND ONE 4 LAMP,<br><10% THD ELECTRONIC BALLAST | 2F32T8/TL835 |

NOTES:

1. PROVIDE 2 EACH SPARE LAMPS FOR EXTRA MATERIAL STOCK.

## EQUIPMENT SCHEDULE

| EQUIP. NO. | DESCRIPTION                  | CIRCUIT NUMBER | VOLTS | PHASE | WATTS H.P. | BREAKER | STARTERS FURNISH/INSTALL | SIZE | AUX. CONT.       | LOCATION        |
|------------|------------------------------|----------------|-------|-------|------------|---------|--------------------------|------|------------------|-----------------|
| AC-1       | SPLIT SYSTEM AIR HANDLER     | M-5            | 208   | 3     | 20 HP      | 3P-100A | E E                      | VFD  | 2 N.O.<br>2 N.C. | MECHANICAL ROOM |
| CU-1       | SPLIT SYSTEM CONDENSING UNIT | M-14           | 208   | 3     | 220.3 AMPS | 3P-350A | M M                      | M    | -                | OUTSIDE         |
| CP-1       | CONDENSATE PUMP              | A3-42          | 120   | 1     | 1/2 HP     | 1P-15A  | E E                      | 3/16 | -                | MECHANICAL ROOM |

E - ELECTRICAL CONTRACTOR  
M - MECHANICAL CONTRACTOR

### SINGLE LINE KEYED NOTES:

1. EXISTING ELECTRICAL EQUIPMENT TO REMAIN.
2. EXISTING FEEDER TO REMAIN. SHOWN FOR REFERENCE ONLY.
3. REMOVE EXISTING FEEDER CONDUCTORS AND ACCESSIBLE CONDUIT ABOVE GRADE. CAP CONDUIT BELOW GRADE AND ABANDON IN PLACE.
4. PROVIDE NEW ENGRAVED NAME PLATE FOR EXISTING FEEDER BREAKERS TO INDICATE "SPARE"
5. EXISTING SERVICE 'B' METERING CABINET WITH POWER DISTRIBUTION BLOCKS AND METER TO REMAIN.
6. REMOVE EXISTING SERVICE 'A' METERING CABINET COMPLETE. SALVAGE EXISTING METER AND CURRENT TRANSFORMERS FOR OWNER.
7. REMOVE EXISTING ELECTRICAL SERVICE GROUNDING ELECTRODE CONDUCTORS, CONDUITS, ETC., COMPLETE. FIELD VERIFY REQUIREMENTS.
8. EXISTING FEEDER TO REMAIN.
9. REMOVE EXISTING FEEDER CONDUCTORS. EXTEND AND CONNECT EXISTING 4" CONDUIT TO NEW PANEL 'M' FOR NEW CONDUCTORS TO EXISTING SAFETY SWITCH 'A'.
10. EXISTING 24" H x 30" W x 8" D SCREW COVER ENCLOSURE TO REMAIN AS FULLBOX FOR NEW FEEDER CONDUCTORS.
11. REMOVE EXISTING POWER DISTRIBUTION BLOCKS FROM EXISTING ENCLOSURE.
12. REMOVE EXISTING FEEDER CONDUCTORS. EXISTING CONDUIT TO REMAIN FOR NEW CONDUCTORS.
13. EXISTING FUSED SAFETY SWITCH FOR PORTABLE DIMMING SYSTEM OR SIMILAR PORTABLE EQUIPMENT, TO REMAIN. REMOVE EXISTING NAMEPLATE INDICATING SERVICE DISCONNECT AT GRAND BUILDING. PROVIDE NEW ENGRAVED NAMEPLATE TO INDICATE "DISCONNECT 'A' - 120/208 V, 3P", ETC., AS REQUIRED FOR SWITCH DESIGNATION.
14. REMOVE EXISTING PANELBOARD MAIN BREAKER. PROVIDE NEW 20 GAUGE STEEL PLATE TO CLOSE OPENING IN DEAD FRONT COVER. PROVIDE NEW MAIN LUGS SUITABLE FOR CONNECTION OF NEW FEEDER CONDUCTORS. REPLACE EXISTING BRANCH CIRCUIT BREAKERS WITH NEW BREAKERS RATED FOR 22,000 A.I.C., SEE PANEL SCHEDULE, SHEET E-602.
15. EXISTING PANEL 'B4' MAIN BREAKER AND BRANCH BREAKERS SERIES RATED FOR 22,000 A.I.C. TO REMAIN.
16. EXISTING PANELBOARD TO REMAIN. REMOVE EXISTING NAMEPLATE INDICATING SERVICE DISCONNECT AT GRAND BUILDING. PROVIDE NEW ENGRAVED NAMEPLATE TO INDICATE "PANEL 'A1' - 120/208 V, 3P", ETC., AS REQUIRED FOR PANEL DESIGNATION.
17. REMOVE EXISTING TRANSFORMER BUSHING WELL INSERTS. PROVIDE NEW 200A, 15 KV, ROTATABLE FEEDTHRU BUSHING INSERTS FOR CONNECTION TO NEW TRANSFORMER. RECONNECT EXISTING CABLE LOAD BREAK ELBOUS. PROVIDE NEW LOAD BREAK ELBOUS FOR NEW MEDIUM VOLTAGE CABLE.
18. NEW LOAD BREAK ELBOW TERMINATIONS FOR NEW MEDIUM VOLTAGE CABLE.
19. PROVIDE NEW CONDUIT THROUGH EXISTING EXTERIOR WALL FROM NEW PANEL 'M' TO EXISTING FULLBOX.
20. INSTALL NEW CONDUIT FROM NEW PANEL 'M' TO BUILDING INTERIOR A LOW AS POSSIBLE TO MINIMIZE AMOUNT OF EXPOSED CONDUIT ON BUILDING EXTERIOR. PAINT EXPOSED CONDUIT TO MATCH BUILDING.
21. PROVIDE SAFETY SWITCH WITH 120 VOLT, 15 AMPERE ELECTRICAL INTERLOCK TO DISCONNECT CONTROL CIRCUIT WITH POWER CONDUCTORS.

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## PROMONTORY HALL HVAC UPGRADE

Utah State Fairpark  
155 North 1000 West  
Salt Lake City, Utah

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| ARCHITECTURAL PHASE: | CONSTRUCTION DOCUMENT BID SET |
| SHEET TITLE          |                               |

## SINGLE LINE DIAGRAMS

# E-601

SHEET 3 OF 4 (ELECT)

| SYMBOL LIST   |   |
|---|---|
| SYMBOL  | DESCRIPTION   |
|    | NEW CEILING MOUNTED FIXTURE   |
|    | NEW FLUORESCENT FIXTURE   |
|    | EXISTING CEILING MOUNTED FIXTURE                                    |
|    | EXISTING WALL MOUNTED FIXTURE                                       |
|    | EXISTING FLUORESCENT FIXTURE  |
|    | NEW SINGLE POLE SWITCH  |
|    | EXISTING SINGLE POLE SWITCH   |
|    | NEW JUNCTION BOX  |
|    | NEW DUPLEX CONVENIENCE OUTLET                                       |
|    | EXISTING SURFACE MOUNTED MULTI-OUTLET ASSEMBLY                      |
|    | OUTLET WITH GROUND FAULT CIRCUIT INTERRUPTER                        |
|    | EXISTING DUPLEX CONVENIENCE OUTLET                                  |
|    | EXISTING TELEPHONE OUTLET   |
|    | NEW POWER PANELBOARD, 120/208 VOLT, 3 PHASE                         |
|    | EXISTING POWER PANELBOARD, 120/208 VOLT, 3 PHASE                    |
|    | NEW TRANSFORMER   |
|    | EXISTING TRANSFORMER  |
|    | NEW 3 PHASE, 4 WIRE HOMERUN INDICATING PANEL AND CIRCUIT NUMBERS    |
|    | NEW BRANCH CIRCUIT CONCEALED IN WALL OR CEILING                     |
|    | NEW BRANCH CIRCUIT CONCEALED IN FLOOR OR WALL                       |
|    | NEW BRANCH CIRCUIT EXPOSED ON WALL OR CEILING                       |
|    | EXISTING BRANCH CIRCUIT   |
|    | NEW MOTOR   |
|    | NEW MAGNETIC MOTOR STARTER OR CONTROL PANEL                         |
|    | NEW DISCONNECT SWITCH, 'F' INDICATES FUSED                          |
|    | NEW MANUAL MOTOR STARTING SWITCH W/ THERMAL OVERLOAD PROTECTION     |
|    | EXISTING MOTOR  |
|  | EQUIPMENT SCHEDULE SYMBOL   |
|  | FIXTURE SCHEDULE SYMBOL   |
|  | KEYED NOTE SYMBOL   |
|  | DETAIL NUMBER OR SECTION LETTER                                     |
|  | SHEET ON WHICH DETAIL OR SECTION IS SHOWN                           |
|  | EXISTING FIRE ALARM CONTROL PANEL                                   |
|  | EXISTING FIRE ALARM PULL STATION                                    |
|  | EXISTING FIRE ALARM HORN  |
|  | NEW FIRE ALARM HORN/STROBE INDICATING MINIMUM EFFECTIVE CANDLEPOWER |
|  | NEW FIRE ALARM HORN/STROBE DUCT MOUNTED SMOKE DETECTOR              |
|  | NEW FIRE ALARM FAN SHUT DOWN RELAY                                  |
|  | INDICATES ITEM IN WEATHERPROOF (NEMA 3R MINIMUM) ENCLOSURE          |

## TRANSFORMER PAD DETAIL

|  | EXISTING METER<br>READING | CURRENT<br>RATIO | TRANSFORMER<br>MULTIPLIER | CALCULATED<br>MAX KW | ESTIMATED<br>POWER FACTOR | CALCULATED<br>MAX KVA |
|--|---------------------------|------------------|---------------------------|----------------------|---------------------------|-----------------------|
| EXISTING SERVICE 'A'   | 1.5 MAX. KW               | 200:5            | 40                        | 60.00                | 90%                       | 66.67                 |
| EXISTING SERVICE 'B'   | 0.5 MAX. KW               | 100:5            | 20                        | 10.00                | 90%                       | 11.11                 |
| EXISTING SERVICE 'A' DEMAND APPLIED TO BRANCH PANELS 'A1', 'A2' & 'A3' PROPORTIONAL TO MAIN RATING |                           |                  |                           |                      |                           |                       |
| PANEL 'A1':  | 225 AMP MAIN BREAKER      |                  |                           |                      |                           | 23.08                 |
| PANEL 'A2':  | 200 AMP MAIN BREAKER      |                  |                           |                      |                           | 20.51                 |
| PANEL 'A3':  | 225 AMP MAIN BREAKER      |                  |                           |                      |                           | 23.08                 |

**A2 TRANSFORMER PAD SECTION**  
SCALE: 3/8" = 1'-0"

| EXISTING PANEL 'A1'                |           |      |                     |            |            |                 |                 |         |         | 22,000 AIC: FULLY RATED +     |            |            |                                    |           |      |            |  |  |  |
|------------------------------------|-----------|------|---------------------|------------|------------|-----------------|-----------------|---------|---------|-------------------------------|------------|------------|------------------------------------|-----------|------|------------|--|--|--|
| SQUARE D TYPE 'NOOB'               |           |      |                     |            |            |                 |                 |         |         | 120/208 VOLT, 3 PHASE, 4 WIRE |            |            |                                    |           |      |            |  |  |  |
| 3 POLE 225 AMP MAIN LUGS +         |           |      |                     |            |            |                 |                 |         |         | SURFACE MOUNTED               |            |            |                                    |           |      |            |  |  |  |
| CIR<br>NO.                         | BRKR<br>P | AMPS | DESCRIPTION         | NO.<br>LTS | NO.<br>REC | CIRCUIT<br>LOAD | PHASE LOAD - VA |         |         | CIRCUIT<br>LOAD               | NO.<br>REC | NO.<br>LTS | DESCRIPTION                        | BRKR<br>P | AMPS | CIR<br>NO. |  |  |  |
|                                    |           |      |                     |            |            |                 | PHASE A         | PHASE B | PHASE C |                               |            |            |                                    |           |      |            |  |  |  |
| 1                                  | 30        |      | HOUSE LIGHTS        |            |            |                 | 0               |         |         |                               |            |            | EXISTING - VERIFY #                |           |      | 20         |  |  |  |
| 3                                  |           |      | HOUSE LIGHTS        |            |            |                 |                 | 0       |         |                               |            |            | EXISTING - VERIFY #                | 2         | 20   | 4          |  |  |  |
| 5                                  |           |      | HOUSE LIGHTS        |            |            |                 |                 |         |         |                               |            |            | -                                  | -         | -    | 6          |  |  |  |
| 7                                  |           |      | HOUSE LIGHTS        |            |            |                 | 0               |         |         | 0                             |            |            | EXISTING - VERIFY #                | 1         | 20   | 8          |  |  |  |
| 9                                  |           |      | HOUSE LIGHTS        |            |            |                 |                 | 0       |         |                               |            |            | EXISTING - VERIFY #                |           |      | 10         |  |  |  |
| 11                                 | 30        |      | EXISTING - VERIFY # |            |            |                 |                 |         |         | 0                             |            |            | EXISTING - VERIFY #                |           |      | 12         |  |  |  |
| 13                                 | 30        |      | EXISTING - VERIFY # |            |            |                 | 0               |         |         |                               |            |            | EXISTING - VERIFY #                |           |      | 14         |  |  |  |
| 15                                 | -         |      | -                   |            |            |                 |                 | 0       |         |                               |            |            | EXISTING - VERIFY #                |           |      | 16         |  |  |  |
| 17                                 | 20        |      | EXISTING - VERIFY # |            |            |                 |                 |         |         | 0                             |            |            | EXISTING - VERIFY #                | 1         | 20   | 18         |  |  |  |
| 19                                 | 30        |      | EXISTING - VERIFY # |            |            |                 | 0               |         |         |                               |            |            | EXISTING - VERIFY #                | 3         | 100  | 20         |  |  |  |
| 21                                 | -         |      | -                   |            |            |                 |                 |         |         | 0                             |            |            | -                                  | -         | -    | 22         |  |  |  |
| 23                                 | -         |      | -                   |            |            |                 |                 |         |         | 0                             |            |            | -                                  | -         | -    | 24         |  |  |  |
| 25                                 | 30        |      | EXISTING - VERIFY # |            |            |                 | 0               |         |         |                               |            |            | EXISTING - VERIFY #                | 3         | 50   | 26         |  |  |  |
| 27                                 | -         |      | -                   |            |            |                 |                 |         |         | 0                             |            |            | -                                  | -         | -    | 28         |  |  |  |
| 29                                 | -         |      | -                   |            |            |                 |                 |         |         | 0                             |            |            | -                                  | -         | -    | 30         |  |  |  |
| 31                                 | 20        |      | EXISTING - VERIFY # |            |            |                 | 0               |         |         |                               |            |            | EXISTING - VERIFY #                | 1         | 30   | 32         |  |  |  |
| 33                                 | 10        |      | EXISTING - VERIFY # |            |            |                 |                 | 0       |         |                               |            |            | ELECTRONIC SIGN #                  | 2         | 60   | 34         |  |  |  |
| 35                                 | 10        |      | EXISTING - VERIFY # |            |            |                 |                 |         |         | 0                             |            |            | -                                  | -         | -    | 36         |  |  |  |
| 37                                 | 20        |      | EXISTING - VERIFY # |            |            |                 | 0               |         |         |                               |            |            | EXISTING - VERIFY #                | 1         | 30   | 38         |  |  |  |
| 39                                 | 30        |      | EXISTING - VERIFY # |            |            |                 |                 | 0       |         |                               |            |            | EXISTING - VERIFY #                | 1         | 30   | 40         |  |  |  |
| 41                                 | 1         |      | SPACE               |            |            |                 |                 |         |         | 0                             |            |            | SPACE                              | 1         |      | 42         |  |  |  |
|                                    |           |      |                     |            |            |                 | 0               | VA      |         | 0                             | AMPS       |            |                                    |           |      |            |  |  |  |
| TOTAL NEW CONNECTED LOAD:          |           |      |                     |            |            |                 | 28,846          |         | VA      | 80                            |            | AMPS       | FEEDER: 4 #4/0, 1 #4 GND, 2-1/2" C |           |      |            |  |  |  |
| CALCULATED FEEDER DEMAND, NEC 220: |           |      |                     |            |            |                 | 28,846          |         | VA      | 80                            |            | AMPS       | (SEE DEMAND CALCULATION)           |           |      |            |  |  |  |

| EXISTING PANEL 'A2'<br>SQUARE D TYPE 'NOD' |           |      |                        |           |           |                 |                 |         |         | 22,000 AIC: FULLY RATED #<br>120/208 VOLT, 3 PHASE, 4 WIRE<br>SURFACE MOUNTED |                                |           |                        |           |      |            |  |  |  |
|--|-----------|------|------------------------|-----------|-----------|-----------------|-----------------|---------|---------|---|--------------------------------|-----------|------------------------|-----------|------|------------|--|--|--|
| 3 POLE 225 AMP MAIN LUGS +                 |           |      |                        |           |           |                 |                 |         |         |   |                                |           |                        |           |      |            |  |  |  |
| CIR<br>NO.                                 | BRKR<br>P | AMPS | DESCRIPTION            | NO<br>LTS | NO<br>REC | CIRCUIT<br>LOAD | PHASE LOAD - VA |         |         | CIRCUIT<br>LOAD   | NO<br>REC                      | NO<br>LTS | DESCRIPTION            | BRKR<br>P | AMPS | CIR<br>NO. |  |  |  |
|  |           |      |                        |           |           |                 | PHASE A         | PHASE B | PHASE C |   |                                |           |                        |           |      |            |  |  |  |
| 1  | 30        |      | EXISTING - VERIFY #    |           |           |                 | 0               |         |         |   |                                |           | EXISTING - VERIFY #    | 2         | 30   |            |  |  |  |
| 2  | 30        |      |                        |           |           |                 |                 |         |         |   |                                |           | EXISTING - VERIFY #    | -         | -    | 4          |  |  |  |
| 5  | 120       |      | EXISTING - VERIFY #    |           |           |                 |                 | 0       |         | 0   |                                |           | EXISTING - VERIFY #    | 1         | 20   | 6          |  |  |  |
| 7  | 120       |      | EXISTING - VERIFY #    |           |           |                 | 0               |         |         |   |                                |           | EXISTING - VERIFY #    | 1         | 30   | 8          |  |  |  |
| 9  | 120       |      | EXISTING - VERIFY #    |           |           |                 |                 |         | 0       | 0   |                                |           | EXISTING - VERIFY #    | 1         | 30   | 10         |  |  |  |
| 11   | 130       |      | EXISTING - VERIFY #    |           |           |                 |                 |         |         |   | 0                              |           | EXISTING - VERIFY #    | 1         | 30   | 12         |  |  |  |
| 13   | 130       |      | EXISTING - VERIFY #    |           |           |                 | 0               |         |         |   |                                |           | EXISTING - VERIFY #    | 1         | 20   | 14         |  |  |  |
| 15   | 130       |      | EXISTING - VERIFY #    |           |           |                 |                 |         | 0       | 0   |                                |           | EXISTING - VERIFY #    |           |      | 16         |  |  |  |
| 17   | 120       |      | EXISTING - VERIFY #    |           |           |                 |                 |         |         | 0   |                                |           | EXISTING - VERIFY #    |           |      | 18         |  |  |  |
| 19   | 130       |      | EXISTING - VERIFY #    |           |           |                 | 0               |         |         |   |                                |           | EXISTING - VERIFY #    |           |      | 20         |  |  |  |
| 21   | 120       |      | EXISTING - VERIFY #    |           |           |                 |                 |         | 0       | 0   |                                |           | EXISTING - VERIFY #    |           |      | 22         |  |  |  |
| 23   | 120       |      | EXISTING - VERIFY #    |           |           |                 |                 |         |         | 0   |                                |           | EXISTING - VERIFY #    |           |      | 24         |  |  |  |
| 25   | 130       |      | NE OUTLETS & STORAGE # |           |           |                 | 0               |         |         |   |                                |           | SE OUTLETS & STORAGE # |           |      | 26         |  |  |  |
| 27   | 120       |      | NORTHEAST OUTLETS #    |           |           |                 |                 |         | 0       |   |                                |           | SOUTHEAST OUTLETS #    |           |      | 28         |  |  |  |
| 29   | 120       |      | NORTH OUTLETS #        |           |           |                 |                 |         |         | 0   |                                |           | SOUTHWEST OUTLETS #    |           |      | 30         |  |  |  |
| 31   | 130       |      | NORTHWEST OUTLETS #    |           |           |                 | 0               |         |         |   |                                |           | SOUTHWEST OUTLETS #    | 1         | 20   | 32         |  |  |  |
| 33   | 120       |      | NORTHWEST OUTLETS #    |           |           |                 |                 |         | 0       | 0   |                                |           | SOUTHWEST OUTLETS #    | 1         | 30   | 34         |  |  |  |
| 35   | 120       |      | NORTHWEST OUTLETS #    |           |           |                 |                 |         |         |   |                                |           | EXISTING - VERIFY #    | 1         | 30   | 36         |  |  |  |
| 37   | 130       |      | EXISTING - VERIFY #    |           |           |                 | 0               |         |         |   |                                |           | EXISTING - VERIFY #    | 1         | 30   | 38         |  |  |  |
| 39   | 1         |      | SPACE                  |           |           |                 |                 |         | 0       |   |                                |           | PANEL 'C' WEST WALL #  | 2         | 100  | 40         |  |  |  |
| 41   | 1         |      | SPACE                  |           |           |                 |                 |         |         | 0   |                                |           |                        | -         | -    | 42         |  |  |  |
|  |           |      |                        |           |           |                 | 0               |         | 0       |   | 0                              |           |                        |           |      |            |  |  |  |
| TOTAL NEW CONNECTED LOAD:                  |           |      |                        |           |           |                 | 0 VA            |         | 0 AMPS  |   | FEEDER: 4 #3/0, 1 #6 GND, 2" C |           |                        |           |      |            |  |  |  |
| CALCULATED FEEDER DEMAND, NEC 240:         |           |      |                        |           |           |                 | 25,641 VA       |         | 71 AMPS |   | (SEE DEMAND CALCULATION)       |           |                        |           |      |            |  |  |  |

| EXISTING PANEL 'A3'                |           |             |                          |            |                 |                 |         |         |                                    | 22,000 A.I.C. FULLY RATED •   |            |                           |                |            |    |  |  |  |  |
|------------------------------------|-----------|-------------|--------------------------|------------|-----------------|-----------------|---------|---------|------------------------------------|-------------------------------|------------|---------------------------|----------------|------------|----|--|--|--|--|
| SQUARE D TYPE 'NODD'               |           |             |                          |            |                 |                 |         |         |                                    | 120/208 VOLT, 3 PHASE, 4 WIRE |            |                           |                |            |    |  |  |  |  |
| 3 POLE 225 AMP MAIN LUGS +         |           |             |                          |            |                 |                 |         |         |                                    | SURFACE MOUNTED               |            |                           |                |            |    |  |  |  |  |
| CIR<br>NO.                         | P<br>AMPS | DESCRIPTION | NO.<br>LTS               | NO.<br>REC | CIRCUIT<br>LOAD | PHASE LOAD - VA |         |         | CIRCUIT<br>LOAD                    | NO.<br>REC                    | NO.<br>LTS | DESCRIPTION               | BRKR<br>P AMPS | CIR<br>NO. |    |  |  |  |  |
|                                    |           |             |                          |            |                 | PHASE A         | PHASE B | PHASE C |                                    |                               |            |                           |                |            |    |  |  |  |  |
| 1                                  | 3         | 60          | OUTSIDE DISCONNECT, WEST |            |                 | 0               |         |         |                                    |                               |            | OUTSIDE DISCONNECT, EAST  | 3              | 40         | 2  |  |  |  |  |
| 3                                  | -         | -           |                          |            |                 |                 | 0       |         |                                    |                               |            | -                         | -              | 4          |    |  |  |  |  |
| 5                                  | -         | -           |                          |            |                 |                 |         |         | 0                                  |                               |            | -                         | -              | 6          |    |  |  |  |  |
| 7                                  | 3         | 70          | INSIDE DISCONNECT, SOUTH |            |                 | 0               |         |         |                                    |                               |            | OUTSIDE DISCONNECT, NORTH | 3              | 40         | 8  |  |  |  |  |
| 9                                  | -         | -           |                          |            |                 |                 |         | 0       |                                    |                               |            | -                         | -              | 10         |    |  |  |  |  |
| 11                                 | -         | -           |                          |            |                 |                 |         |         | 0                                  |                               |            | -                         | -              | 12         |    |  |  |  |  |
| 13                                 | 1         | 20          | OUTSIDE GFCI, SOUTHWEST  |            |                 | 0               |         |         |                                    |                               |            | OUTSIDE GROUND LTS, WEST  | 1              | 20         | 14 |  |  |  |  |
| 15                                 |           |             | OUTSIDE GFCI, SOUTHWEST  |            |                 |                 |         | 0       |                                    |                               |            | OUTSIDE GROUND LTS, EAST  | 1              | 20         | 16 |  |  |  |  |
| 17                                 |           |             | OUTSIDE GFCI, SOUTHWEST  |            |                 |                 |         |         | 700                                | 700                           | 4          | MECH RM LIGHTS            | 1              | 20         | 18 |  |  |  |  |
| 19                                 |           |             | OUTSIDE GFCI, NORTHWEST  |            |                 | 0               |         |         |                                    |                               |            | OUTSIDE LTS & TIME SWITCH | 1              | 20         | 20 |  |  |  |  |
| 21                                 |           |             | OUTSIDE GFCI, NORTHWEST  |            |                 |                 |         | 0       |                                    |                               |            | TICKET BODTH LTS & REC    | 1              | 20         | 22 |  |  |  |  |
| 23                                 |           |             | OUTSIDE GFCI, NORTHWEST  |            |                 |                 |         |         | 0                                  |                               |            | WALK-IN LIGHTS            | 1              | 20         | 24 |  |  |  |  |
| 25                                 |           |             | OUTSIDE GFCI, NORTHEAST  |            |                 | 0               |         |         |                                    |                               |            | WALK-IN EVAPORATOR        | 1              | 20         | 26 |  |  |  |  |
| 27                                 |           |             | OUTSIDE GFCI, NORTHEAST  |            |                 |                 |         | 695     |                                    | 695                           |            | ATC & CU-1 CONTROL CKT    | 1              | 20         | 28 |  |  |  |  |
| 29                                 |           |             | OUTSIDE GFCI, NORTHEAST  |            |                 |                 |         |         | 0                                  |                               |            | SPACE                     | 1              | 30         | 30 |  |  |  |  |
| 31                                 |           |             | OUTSIDE GFCI, SOUTHEAST  |            |                 | 0               |         |         |                                    |                               |            | EXISTING - VERIFY #       | 2              | 20         | 32 |  |  |  |  |
| 33                                 |           |             | OUTSIDE GFCI, SOUTHEAST  |            |                 |                 |         | 0       |                                    |                               |            | -                         | -              | 34         |    |  |  |  |  |
| 35                                 |           |             | OUTSIDE GFCI, SOUTHEAST  |            |                 |                 |         |         | 0                                  |                               |            | WALK-IN COMPRESSOR        | 2              | 30         | 36 |  |  |  |  |
| 37                                 | 1         | 20          | OUTSIDE SPRINKLERS       |            |                 | 0               |         |         |                                    |                               |            | -                         | -              | 38         |    |  |  |  |  |
| 39                                 | 1         |             | SPACE                    |            |                 |                 |         | 540     |                                    | 540                           | 3          | REC, MECH RM & OUTSIDE    | 1              | 20         | 40 |  |  |  |  |
| 41                                 | 1         |             | SPACE                    |            |                 |                 |         |         | 265                                | 265                           |            | CONDENSATE PUMP CP-1      | 1              | 15         | 42 |  |  |  |  |
|                                    |           |             |                          |            |                 | 0               | 1,235   | 965     |                                    |                               |            |                           |                |            |    |  |  |  |  |
| TOTAL NEW CONNECTED LOAD:          |           |             |                          |            |                 | 2,200 VA        | 6 AMPS  |         | FEEDER: 4 #4/0, 1 #4 GND, 2-1/2" C |                               |            |                           |                |            |    |  |  |  |  |
| CALCULATED FEEDER DEMAND, NEC 220: |           |             |                          |            |                 | 31,461 VA       | 87 AMPS |         | (SEE DEMAND CALCULATION)           |                               |            |                           |                |            |    |  |  |  |  |

**A** RCHITECTURE  
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